PMA Doc Ref: DFT-TCF-016

Full Business Case (FBC)

Harrogate Station Gateway Improvements (TCF)

August 2025

Applicant Details	
Name of scheme:	Harrogate Railway Station Gateway Improvement Scheme
Scheme PMA Reference Code:	DFT-TCF-016
Business Case Stage	Full Business Case (Activity 4)
Location of scheme (including postcode):	Harrogate Town Centre and surrounding area
Lead Organisation:	North Yorkshire Council
Type of organisation:	Unitary Authority

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Is any information in this form is considered exempt from release under Section 41 of the Freedom of Information Act 2000	Yes	
	No	X

Document Control			
Version	**Date**	**Author**	**Checked**
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Certificate of Approvals

To be completed by Combined Authority staff:

This business case has been appraised in accordance with the Leeds City Region Assurance Framework and approved by the following:

Note - the required approvals will depend on the agreed approval pathway set out and agreed for the scheme during Stage 1: Pipeline Eligibility, if it does not require a certain approval then mark as N/A

	Approved (Y/N, n/a)	Signed	Date
Combined Authority Case Officer:			
Appraisal Team/Peer Review Team			
Portfolio Appraisal Team:			
Combined Authority Managing Director:			
Investment Committee:			
Combined Authority:			
Other (Please State):			

1. Scheme Summary

1.1 Scheme Description:

Introduction

The Harrogate Railway Station Gateway Improvement Scheme (the scheme) delivers transport and public realm focused interventions in and around Harrogate Railway Station. These are aimed at driving modal shift from private car to more sustainable modes of transport by providing accessible, attractive and cleaner travel alternatives, supporting planned local growth in a sustainable way.

In light of the climate emergency declared by the UK government in May 2019, and subsequently by North Yorkshire Council (NYC) in July 2022, the scheme places a focus on people and placemaking while working towards a Carbon-Zero Economy for the district and wider region through low carbon interventions, both in design and post scheme usage.

The scheme will deliver sustainable travel infrastructure improvements to respond to existing demands on the local transport network, which include congestion and journey time unreliability (which adversely impacts Harrogate's economic performance). There is an opportunity to improve sustainable transport accessibility to reduce these demands and support new development and growth, whilst also taking full advantage of planned rail and bus service enhancements.

By improving the aesthetics of the station area, through public realm enhancements, combined with delivering multi-modal accessibility and connectivity improvements, the proposals will help to deliver 'healthy streets' in the town centre.

The proposed scheme will establish Harrogate Station as a key travel gateway and central sustainable travel hub within the town. The proposals will enhance the accessibility of the station and the links with the town centre, new developments and ultimately the wider region, thus helping to attract inward investment into Harrogate.

Scheme Development

The scheme formed part of the Leeds City Region (LCR) Transforming Cities Fund (TCF) Strategic Outline Case (SOC), submitted to the Department for Transport (DfT) in November 2019. The SOC detailed packages of schemes across the city region. Following the successful bid, £317m of TCF funding was announced for the LCR in March 2020.

The Outline Business Case (OBC) for the Harrogate scheme was then approved by the West Yorkshire Combined Authority (WYCA) in June 2021.

Following the submission of the OBC, a value-engineering (VE) exercise was undertaken, based on the latest cost information and funding available. This resulted in some elements of the scheme being scaled back and/or descoped to deliver cost-savings. The scheme designs also evolved as a direct result of stakeholder feedback highlighted in the second and third rounds of consultation in November-December 2021 and July-August 2022, respectively. This included a strong preference for one-way traffic restrictions on Station Parade, additional lighting proposals, and street furniture such as benches and bins.

However, following the development of the Gateway Improvements from a feasibility study to very near to completion of a Detailed Design to meet the objectives of the TCF from WYCA, the council received a legal challenge to the scheme. As a result of this, a revised scheme was developed to reduce the risk of legal challenge, while delivering the maximum benefits to the people of Harrogate and retaining the core TCF station gateway focus. A review of detailed designs was carried out by a Quality Review Panel in August and November 2024.

Full details of the scheme's development and optioneering process to FBC stage are set out in the Options Appraisal Report (OAR) Addendum.

Preferred Option at FBC Stage

The revisions and iterations of the scheme proposals have resulted in elements of the scheme being descoped and/or scaled back since the OBC. The preferred scheme option appraised as part of this FBC includes the following:

Station Parade (between Bower Road and Cheltenham Parade)

- A new dedicated bus lane and width to accommodate cycles. General traffic would be able to access this section of Station Parade from Bower Road.
- Reducing the amount of on-street parking and introducing trees to enhance the look and feel of the street for pedestrians.
- Making the junction between Station Parade and Cheltenham Parade safer and easier for pedestrians with shorter crossing distances and reduced traffic.

Cheltenham Parade / Station Parade / Bus Station Junction

- Kerbing and footway improvements on Cheltenham Parade and upgrading the existing signal-controlled pedestrian crossing adjacent to Mount Parade.
- New signal-controlled junction layout.

Station Parade (between Cheltenham Parade and the Bus Station exit junction)

- A new segregated cycle track.
- A new signal-controlled junction will be provided at the Bus Station exit including a pedestrian crossing on a raised table over Station Parade and pedestrian/cycle facilities across the Bus Station exit.
- Footway resurfacing and reconfiguration.

Station Square

- Urban realm improvements in the Station Square, including creation of a new public space for events, rain gardens and Hostile Vehicle Management (HVM) measures. The existing highways through the square will be maintained with HVM access bollards installed which will be manually controlled.
- Paving materials (Yorkstone) to match existing northern third.

One Arch underpass

- Enhancements to the One Arch underpass by opening-up entrances and improving lighting to improve usability for pedestrians and cyclists and make it more welcoming at all times

of the day and night. Proposals will improve visibility and therefore reduce the potential for conflicts between cyclists and pedestrians.

- The boundary wall to the east of One Arch, on Bower Street will also be reduced in height to improve visibility.

Station Parade (between the Bus Station exit junction and Victoria Avenue)

- New signal-controlled junction layout at the junction of Station Parade/Station Bridge/Albert Street.
- Footway resurfacing and reconfiguration.
- A new segregated cycle track.
- Marked parking bays will be provided on the east side of the carriageway and a new disabled bay will be marked on the west side of the carriageway with a dropped section for access.

Cycle parking facilities

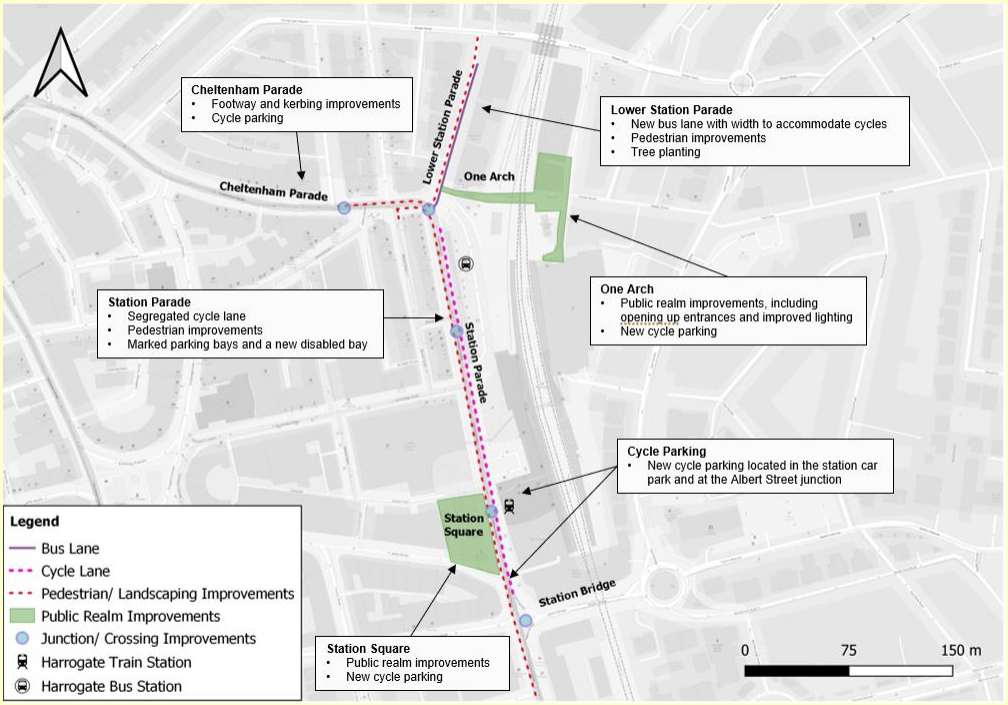
A total of 31 cycle parking facilities will be provided as part of the scheme. The main scheme cycling facilities are located at the following locations:

- 2 on Cheltenham Parade
- 7 on Station Square
- 12 in Station Car Park
- 3 on Albert Street Junction

The One Arch cycling facilities are located on the western side of One Arch near the junction with Station Parade/Cheltenham Parade. The remaining 7 spaces will be provided here.

Junction and crossing improvements are also proposed as part of the scheme. All other areas previously considered as part of the OBC have been descoped. A high-level, indicative plan showing the locations of the scheme interventions is provided in Figure 1-1.

Figure 1-1 - Proposed Interventions (Preferred Scheme)



1.2 Scheme Objectives:

The Strategic Case (Chapter 2 of this FBC) sets out the need for the scheme and defines the outcomes and scope.

An investment specific logic map has been produced , presenting the expected relationship between the scheme objectives, the outputs and outcomes sought from the investment in the scheme. This informs the appraisal approach, and more widely, the monitoring and evaluation criteria. The logic map also outlines the scheme's contribution towards regional and government priorities, including the TCF programme-wide objectives.

As mentioned above, this scheme formed part of the LCR TCF SOC, submitted in November 2019, with £317m of TCF funding announced for the LCR in March 2020.

As set out in further detail below, Harrogate district previously fell within the boundary of the LCR Local Enterprise Partnership (LEP) and was a constituent member of WYCA. However, Harrogate now falls within the administrative boundaries of NYC (as of 2023 and formerly titled North Yorkshire County Council) and now the York and North Yorkshire Combined Authority (YNYCA), established since 1 April 2024.

These administrative changes occurred subsequent to the initial bid submission and formation of the scheme objectives. Harrogate still remains a strategic economic partner and neighbour of the LCR and WYCA. The scheme objectives closely align to the LCR Strategic Economic Plan (LCR SEP), and building on the SEP, the WYCA Strategic Economic Framework (SEF), and as such are still relevant to the scheme at FBC.

The scheme objectives were also developed so that they directly support and align with the TCF programme-wide objectives. The relationship between the two is illustrated later in this section.

Regional Priorities

The four priorities set out in the LCR SEP are:

- Priority 1: Growing Business
- Priority 2: Skilled People, Better Jobs
- Priority 3: Clean Energy and Environmental Resilience
- Priority 4: Infrastructure for Growth

Building on the SEP, the 2020 SEF sets out a new vision for the region, in light of new challenges during periods of change and uncertainty. WYCA's vision, as set out in the SEF, is to be:

"Recognised globally as a place with a strong, successful economy where everyone can build great businesses, careers and lives supported by a superb environment and world class infrastructure."

Programme Priorities

A key element of the SEF is the commitment to 'levelling up' the region. The LCR TCF programme will directly contribute towards this SEF commitment, through the provision of world-class infrastructure that will support growth and economic prosperity across the region.

The overarching vision for the LCR TCF programme is:

"Connecting people to economic and education opportunities through affordable, sustainable transport, boosting productivity and helping to create cleaner, healthier and happier communities for the future."

This overarching TCF vision has shaped the four Programme level objectives:

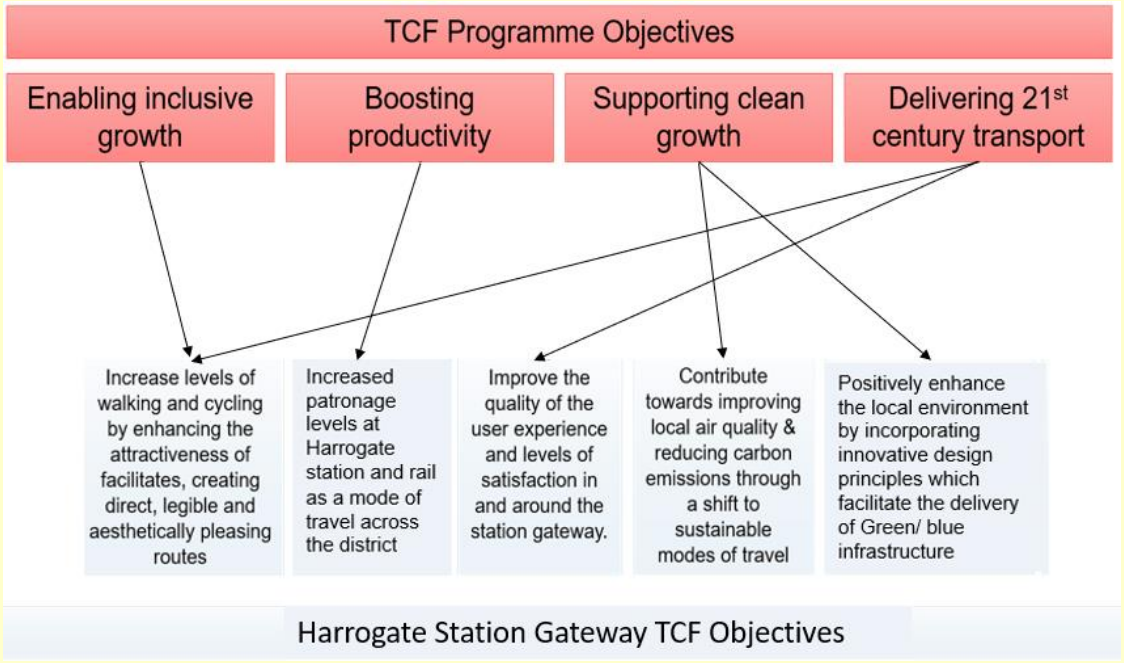
1. **Enabling inclusive growth:** to enable as many people as possible to contribute to and benefit from economic growth and contribute to improved health and wellbeing of our residents;
2. **Boosting productivity:** working with our businesses and universities to close the productivity gap, create thousands of jobs and add substantially to our economy;
3. **Supporting clean growth:** achieving our target for a net zero carbon economy by 2038 through lowering carbon emissions and taking advantage of new innovations to create jobs and growth; and
4. **Delivering 21st century transport:** creating a transport system which addresses the challenges we face around capacity, connectivity, sustainability and air quality.

Scheme Objectives

Five scheme specific objectives have been developed in response to the identified problems in Section 2.1 below, while also aligning with the wider governmental and WYCA strategic aims and responsibilities. It should be noted that the project objectives have not changed as a result of the change in scheme design and scope at FBC stage.

The scheme objectives were designed to meet the high-level city-region objectives that the LCR TCF programme as a whole aims to support. The figure below illustrates the relationship between the TCF programme level objectives and the scheme specific objectives.

Figure 1-2 - Relationship between the programme objectives and scheme objectives



Delivery of the scheme objectives will make a key contribution to the programme-wide targets for the TCF programme, as set out in the 2019 SOC. Development and delivery of the proposed scheme will also align to the aforementioned SEF and the West Yorkshire Transport Strategy 2040, both of which are discussed in further detail in Section 2.1.4 of the Strategic Case.

In developing the scheme objectives, local evidence and WYCA guidance was drawn upon to ensure the objectives are SMART (Specific, Measurable, Achievable, Realistic, Time-limited). This ensures that the objectives can be measured and monitored as part of the scheme's monitoring and evaluation plan, and to specific timescales for benefit realisation. The project objectives also provide a foundation for the development of the scheme and its appraisal within this FBC. In line with Green Book guidance, all shortlisted options for the scheme must meet the SMART objectives.

The performance of the scheme in meeting the project objectives will be assessed as part of the Monitoring and Evaluation (M&E) Plan , one year and five-years after scheme opening. The M&E Strategy reflects the evolution of the scheme scope, design and the magnitude of impacts on rail patronage, levels of cycling and walking, user satisfaction, local air quality and the public realm.

Table 1-1: Harrogate Station Gateway Scheme Objectives

Scheme Objective	Indicator	Target[1]	Year
Increase levels of walking and cycling by enhancing the attractiveness of facilities, creating direct, legible and aesthetically pleasing routes.	Increase mode share (walk, cycle, rail and bus)	Increase in the number of people accessing the Gateway area on foot and by bike, supporting modal shift away from the private car. Footfall increase on Cheltenham Parade and Station Parade.	Five years after opening.
Increase patronage levels at Harrogate Station, and rail as a mode of travel across the district.	Increase in number of passengers accessing the station. Increase in patronage resulting from modal shift away from private car.	Increased number of people accessing Harrogate Station on foot and by bike. To support a shift from car to rail.	Five years after opening.
Improve the quality of the user experience and levels of satisfaction in and around the station gateway.	Change in pence per minute between the existing and future situation. User Satisfaction Surveys (carried out in scheme area).	Average increase in pence per minute (Willingness to Pay). Increase in user satisfaction using user surveys.	On opening, measurable against DfT code of progress, and five years after opening.
Contribute towards improving local air quality and reducing carbon emissions through a shift to sustainable modes of travel.	Reduction in vehicle kms from a shift to active modes. NOx (kg/year) CO2 (kg/year)	Reduction in vehicle kms travelled. No target set- will be tracked. Reduction in NOx and CO_2 emissions. No targets set- will be tracked.	Five years after opening.

[1] Numeric values for each target are set out in the BRP Strategy (Appendix AA)

Positively enhance the local environment by incorporating innovative design principles which facilitate the delivery of green/ blue infrastructure.	Green and blue infrastructure net gain.	Implement a planting regime.	On opening, measurable against DfT code of practice.

1.3 Key activities to be funded:

DfT funding through the TCF will be used to pay for the Harrogate Station Gateway Improvements which will contribute to the design, preparation and construction of the scheme. NYC will also make a contribution to cover the remaining scheme costs.

The scheme funding sources and forecast contributions are presented in the table below.

Table 1-2: The Scheme Funding Sources and Forecast Contributions

Funding Organisation	Funding Stream/ funding source	Funding Contribution (Spend to Date)	Forecast Funding Contributions
Department for Transport	TCF	£2,296,532	£11,006,970
NYC, York and North Yorkshire Combined Authority (YNYCA)	Capital Budgets	-	£3,050,000
Total		£2,296,532	£14,056,970

Scheme Programme:	Construction Start Date	Construction End Date
	Q3 2025	Q1 2027
Total Scheme Cost (£):	£14,056,970 (including spend to date)	
Combined Authority funding (£):	£11,006,970	
Combined Authority funds as % of total scheme investment:	78.3%	
Total other public sector investment (£m)	£3,050,000	
Total other private sector investment (£m):	n/a	
Applicable Funding Stream:	Transforming Cities Fund (TCF)	

Strategic Economic Plan Priority Area:	Which priority of the LCR Strategic Economic Plan (2016) the project will help deliver: ▪ Priority Area 1 – Growing Businesses ▪ Priority Area 2 – Skilled People, Better Jobs ▪ Priority Area 3 – Clean Energy & Environmental Resilience ▪ Priority Area 4 – Infrastructure for Growth

2. Strategic Case

2.1 The Strategic Context

2.1.1 What are the strategic drivers for this investment?

Introduction

This section presents the key issues and challenges currently facing Harrogate, as well as the future conditions and issues that are likely to arise without the scheme. Drawing on local evidence, this section sets out a clear rationale for the Harrogate Station Gateway Improvements.

It should be noted that on 1 April 2023 the county council and seven district councils in North Yorkshire were abolished and replaced with a new, single unitary council: NYC, formerly titled North Yorkshire County Council.

Where previously the borough of Harrogate operated under a two-tier government structure, with separate unitary and district authorities (North Yorkshire County Council and Harrogate Borough Council), these organisations have now merged to form a single unitary authority.

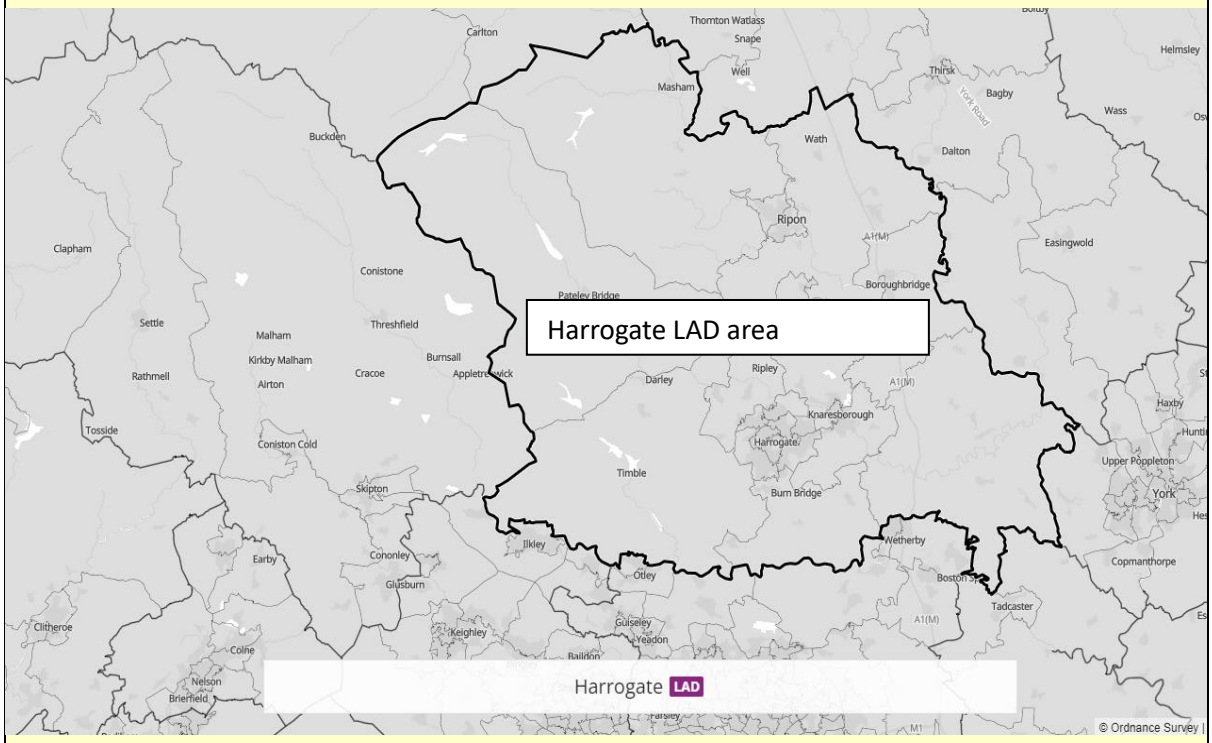
From 1 April 2024 York and North Yorkshire became a Combined Authority with an elected mayor. It should also be noted that Harrogate also previously sat within the York and North Yorkshire Local Enterprise Partnership (YNY LEP) area. However, the LEP has now also been integrated into the YNYCA.

The 2021 and 2011 Census data utilised throughout this Strategic Case reflects the geographical formation of the region at the time it was published. Statutory district and county policies are retained as valid documents where applicable until a formal replacement is published.

This section utilises Census data to demonstrate the current conditions and strategic requirements for the TCF scheme in Harrogate. Where possible, Census 2011 data has been revisited and updated with figures from the 2021 Census. Where 2021 Census data has been used, particularly in relation to travel and working patterns, the implications of the COVID-19 pandemic and associated travel restrictions have been considered.

Much of the data for Harrogate is presented at a local authority district level (LAD), covering the geographical area previously governed by Harrogate Borough Council. Any subsequent references to Harrogate as a borough, reflect the geographical formation of the area prior to the local government restructure in April 2023.

Figure 2-1: Harrogate Local Authority District Area



Existing Situation

Spatial Context

Harrogate is the principal town within the Harrogate district, acting as the commercial and economic centre. The district covers 1,300 square kilometres southeast of the Yorkshire Dales National Park, with the A61 and A1(M) running north-south and the A59 running east-west.

Harrogate falls within the administrative boundaries of the following:

- York and North Yorkshire Combined Authority; and
- North Yorkshire Council

The following section discusses each of these organisations in turn and summarises the spatial context in respect of the intervention area.

Harrogate district previously fell within the boundary of the LCR LEP and was a constituent member of WYCA – with established business and commuting connections. However, since the initial bid submission, the district and Borough Council no longer forms part of the administration yet remain a strategic economic partner and neighbour.

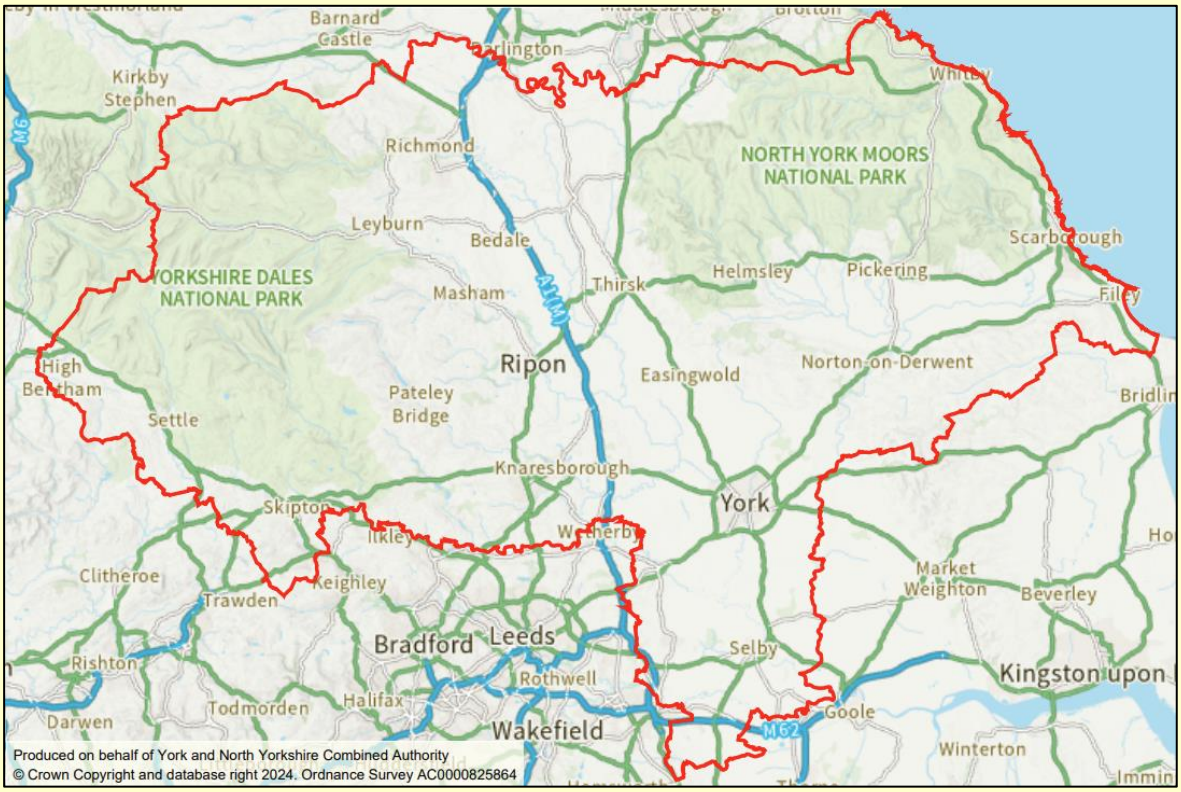
Harrogate also previously fell within the York and North Yorkshire Local Enterprise Partnership. However, the LEP has now been integrated into the YNYCA.

York and North Yorkshire Combined Authority

Harrogate sits within the YNYCA area. Following local government reorganisation, a 30-year devolution deal for York and North Yorkshire, an investment fund of over £500 million was

announced in August 2022. This led to the launch of the Combined Authority on 1 February 2024. This is a legally recognised, single body and was created by NYC and the City of York Council (CYC). This is visually presented below in Figure 2-2.

Figure 2-2 - York and North Yorkshire Combined Authority[2]



The YNYCA's Economic Framework builds on the Strategic Economic Plans and policies of NYC and CYC. Following the election of the Mayor in May 2024, the Framework was revised, with the key priorities of the Mayor incorporated to ensure communities were at the heart of what the Combined Authority delivers. The Framework sets out the agreed priorities and headline delivery plans for the YNYCA. Three overarching ambitions underpin the new Framework:

- **Transition to a carbon negative region** – a carbon negative, circular and more resilient economy
- **Deliver inclusive economic growth** – a global, innovative, productive economy with strong and thriving businesses
- **Increase opportunities for all** – a thriving and inclusive economy

Five thematic priorities sit within and support these overarching ambitions:

- Healthy and thriving communities
- Vibrant and sustainable places

[2] York and North Yorkshire Combined Authority, 2024

- Boosting business and a thriving workforce
- Sustainable and affordable housing
- Sustainable and affordable transport

The emerging Routemap to Carbon Negative sets out the region's ambitious plans to be net zero carbon by 2034 and carbon negative by 2040. The Routemap sets out to position the Combined Authority at the forefront of national climate action and harness the economic opportunities of net zero to leverage investment.

YNYCA's Economic Framework supports this, highlighting that the transition to carbon negative will not be feasible without modal shift and the decarbonisation of local transport systems. The Framework sets out a number of actions, including investment in transport infrastructure to support a better connected and more accessible York and North Yorkshire, supporting mode shift away from the private car and reducing transport-related social exclusion. The Framework also prioritises strengthening of places to support high streets and town centres while developing a green economy and creating vibrant and sustainable places. Further details of these Strategies and Plans are outlined in Section 2.1.4.

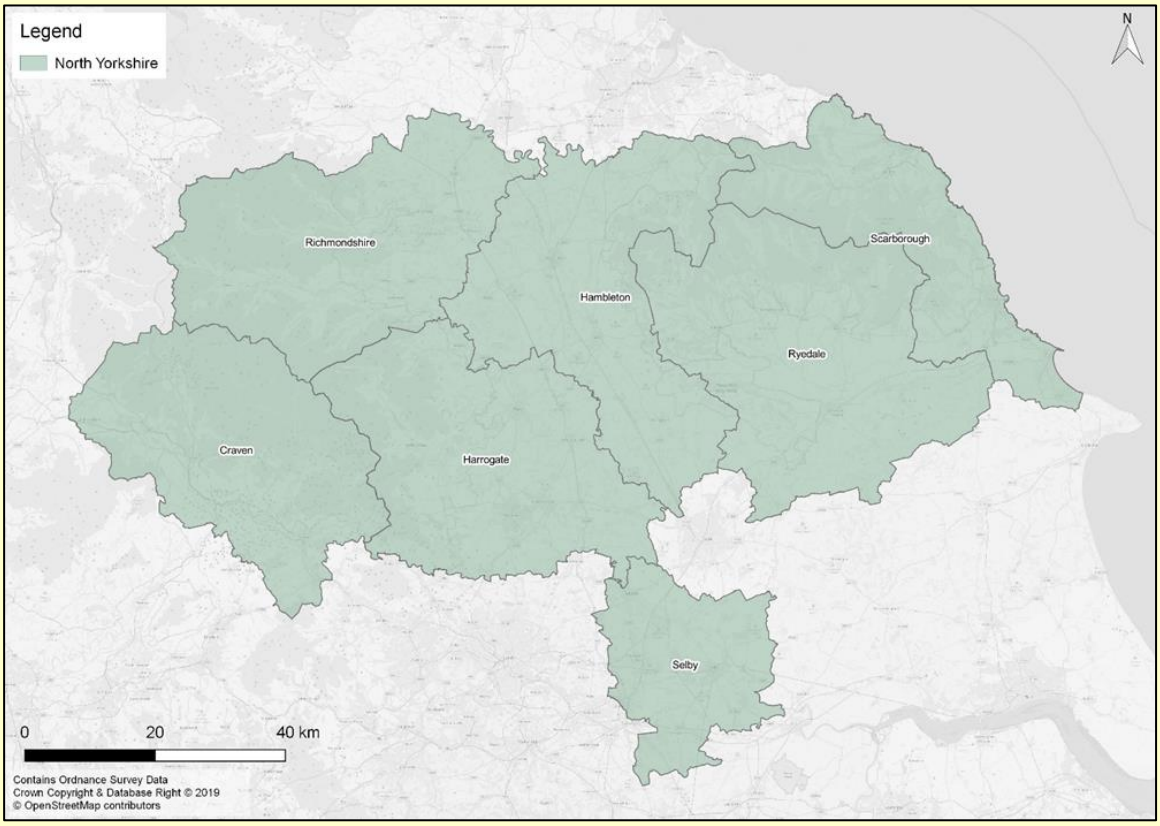
Harrogate plays a key role in contributing to the Combined Authority's economy, with a number of profitable businesses and a well-connected economy. It is therefore important to support the area and ensure the town is sustainably connected, given its current and growing potential to significantly benefit the regional economy. This will support the town and the wider Combined Authority in meeting the three overarching ambitions of the Economic Framework and carbon negative goals.

North Yorkshire Council

As set out previously, in April 2023 the previous two-tier structure of seven district/borough councils and one county council was abolished and a single unitary council was established. Harrogate now sits within the NYC administrative area which includes the former seven areas of Selby, Harrogate, Craven, Richmondshire, Hambleton, Ryedale and Scarborough. The administrative area of NYC is shown in Figure 2-3.

The Council Plan for North Yorkshire (2023-2027) sets out ambitions for 'a well-connected and planned place with good transport links and digital connectivity' and 'economically sustainable growth that enables people and places to prosper'. The plan recognises a need to ensure that the transport network and related services are as reliable and efficient as possible, both to support the existing economy and to help facilitate future economic growth ambitions as well as being sustainable. The NYC Plan is discussed in more detail in Section 2.1.4.

Figure 2-3 - NYC Administrative Area



Harrogate is one of the main towns and service centres in North Yorkshire and has strong economic links with neighbouring Leeds. The town has a thriving visitor economy, however, a highly qualified population and high cost of living, results in an economic imbalance that leads to a high prevalence of cross-boundary commuting.

Harrogate Rail station acts as the primary transport gateway in the town, both to the wider region and to key destinations, including Leeds and York.

Strategic Drivers for Investment

Economic Context

As set out in NYC's Economic Growth Strategy, Harrogate is one of the primary economic centres in North Yorkshire. Harrogate's economy is highly integrated with economies in York and West Yorkshire, boasting strengths in financial and professional services, with a long history of successful business start-ups. Harrogate also benefits from being home to one of the largest Contract Research Operations in the UK, an established financial technology cluster and Europe's largest cold storage distribution centre. The town also has a strong visitor economy, including the Harrogate Convention Centre.

However, growth is being suppressed by local transport, property and demographic conditions. There is also an over dependency on employment in visitor driven sectors. There are barriers preventing the creation of sustainable higher paid jobs where transport and the location/type of commercial accommodation do not support business growth. There is a persistent loss of young

people, exacerbated by a growing elderly population. Housing is also unaffordable for many – and it is becoming apparent that Harrogate is not immune to a climate of declining town centres.

As noted previously, some of this section utilises data published prior to the government restructure in 2023. Therefore, much of the data is presented at LAD level, covering the geographical area previously governed by Harrogate Borough Council. This area is illustrated in Figure 2-1 above.

Employment

Between April 2023 and March 2024 Harrogate's unemployment rate was recorded at 2.4%, significantly lower than Yorkshire and The Humber and national averages over the same period (3.4% and 3.9%, respectively). The unemployment rate in Harrogate has considerably dropped since 2018 (3.0%), representing positive employment growth, which the scheme would continue to support.

Table 2-1 sets out the occupation types by proportion of residents of Harrogate and Yorkshire and the Humber, compared with the corresponding national averages.

Table 2-1: Resident Employment by Type[3]

Occupation	Harrogate %	Yorkshire and the Humber %	England %
Managers, directors and senior officials	13.1	9.7	11.2
Professional occupations	26.6	25.3	26.8
Associate professional and technical occupations	15.0	13.6	15.2
Administrative and secretarial occupations	6.8	8.8	9.6
Skilled trades occupations	11.1	9.9	8.6
Caring, leisure and other service occupations	11.4	8.5	8.1
Sales and customer service occupations	6.5	6.7	6.1
Process plant and machine operatives, and Elementary occupations	9.6	17.1	14.3

[3] Employment by occupation, Nomis, Census 2023/24

Overall, the working resident population of Harrogate has a higher than average proportion of residents in skilled/professional work. Employment in mid-level occupations (e.g. Administrative, Skilled Trade) is lower than the regional and national average. The proportion employed as Plant and Machine Operatives is noticeably below that recorded elsewhere in the country.

Some of Harrogate's economic strengths are also its weaknesses, primarily the prevalence of low value employment in the town because of the tourism and visitor-based economy. Around 55% of Harrogate's residents are employed in professional and managerial roles, while less than 18% work in service related sectors. As discussed in more detail later in this section, this pattern correlates with the higher than average earnings of residents but not with the area's economic make up. This reinforces the trend of out-commuting for higher value jobs, and in-commuting for lower value jobs, such as those at hotels and conference facilities, which are prevalent in the town. The high cost of living in the town compounds this issue.

Harrogate's high outflow of skilled workers has economic and environmental implications, particularly given that the majority of commuters travel to work by private vehicle, discussed in further detail later in this section. From an economic perspective, there is an imbalance in Harrogate's economy. The high proportion of skilled, qualified residents is misaligned with the high proportion of jobs in unskilled, low value sectors including tourism and hospitality. This has resulted in a less resilient economy, with high levels of cross-boundary commuting and unsustainable travel patterns.

As such, there is scope to encourage a shift towards more sustainable modes for commuting trips, such as bus or rail. Harrogate's skilled resident base also suggests that there is potential to diversify the local economy, attracting high value, diverse and innovative businesses to invest in the town centre, opening up opportunities for high skilled, high paid jobs in the town. This would provide greater economic resilience, boost Harrogate's economy and support national and regional ambitions through the provision of world-class infrastructure that will support growth and economic prosperity.

Socio-Demographic Context

Population

At the beginning of 2024, Harrogate had a total population of approximately 164,100 people. The population is ageing rapidly, there is expected to be a 65% increase in people aged over 65 by 2041[4]. The older (and ageing) population is mirrored in the proportion of residents aged 16-64, which is lower than that for both Yorkshire and the Humber and Great Britain, as shown in Table 2-2.

[4] Harrogate population change, ONS, Census 2021

Table 2-2: % Population Estimates by Age (Census 2021)[5]					
Location	**0-15**	**16-24**	**25-49**	**50-64**	**65+**
Harrogate	16.9%	8.8%	28.5%	22.6%	23.3%
North Yorkshire	16.2%	8.4%	27.6%	23.0%	25.1%
Yorkshire and the Humber	18.5%	11.0%	31.6%	19.7%	19.0%
England	18.5%	10.6%	33.0%	19.4%	18.3%

The data shows that the economically active age range (16-64) comprises of around 60% of Harrogate, which is slightly higher than for North Yorkshire (59%), but lower than the regional average and national average (62% and 63% respectively).

The proportion of the population aged over 65 in Harrogate is 23% which is significantly higher than the regional and national averages; indicating the ageing population that is synonymous with the North Yorkshire area.

The lower proportion of working age adults may also be a result of an out-migration of younger people from the Harrogate area. There are a number of reasons for this including a lack of post-18 educational opportunities, forcing younger residents to leave the area to access these opportunities. It is important that Harrogate increases the proportion of younger, working age adults to support its economic growth aspirations. An ageing population, correlating to a reduction in the working age population, also has significant implications including the structure of the local labour force, future household formation, demands on healthcare provision and accessibility of amenities and services.

The transport infrastructure provided in the town must be able to accommodate and support Harrogate's ageing population, ensuring residents are able to remain active and mobile, while helping to reduce isolation and loneliness. Therefore, it is important to provide a balance of infrastructure across a range of modes that support the varying needs of the changing population. Ultimately, the transport network must ensure resilience against future growth projections and provide a network that is fully inclusive to all, regardless of age or personal mobility.

From an economic perspective, Harrogate's ageing population reduces the ability of the local labour force to support sustained economic growth and development. A relatively limited amount of capacity exists to grow the labour supply from the current resident population that highlights the need to encourage an inward flow of a proportion of the local workforce, which is dependent on strong connectivity with the wider city region. This highlights the importance of providing

[5] Source: Population Age Estimation, Nomis, Census 2021

enhanced connectivity between Harrogate and the wider region, facilitating the ease of movement of people and goods, enabling inclusive growth, as well as supporting ambitions to level up the region.

Education

Despite a lack of 18+ educational institutions in the area, a key economic strength of Harrogate is its skilled and well-educated resident population. The district has strong academic attainment levels, as shown below in Table 2-3. It should be noted that data for 2020 and 2021 has not been presented due to the impact of the COVID-19 pandemic and the period of disruption to learning that this has caused.

The percentage of students achieving a grade 5 or above (grade 5 is a 'strong pass', equivalent to a high C or low B) in English and Maths was 49.3% in 2023. This is above both the national (45.0%) and the North Yorkshire (45.7%) average in 2023[6]. Harrogate's attainment levels at Key Stage 4 (KS4) have consistently been above the regional and national levels.

Table 2-3: KS4 – % achieving a grade 5 or above in English and Maths

Year	Harrogate & Knaresborough (%)	North Yorkshire (%)	National (%)
2018	54.2	48.0	43.3
2019	54.0	47.4	43.2
2022	61.4	53.8	49.8
2023	49.3	45.7	45.0

Harrogate's academic performance is also demonstrated with 48.7% of Harrogate residents having a degree or higher degree level qualification (or equivalent), which is significantly above the regional rate of 41.2%, and also exceeds the national rate of 46.7%[7].

This level of academic performance, coupled with Harrogate's proximity to northern areas of Leeds, contributes to the cross-boundary trips (between Leeds and Harrogate) to access educational opportunities. As such, strong transport links to the wider region, particularly in relation to public transport, are important to enable pupils and residents to have opportunities to access education, whilst not adding pressure to the highways and wider transport network.

Several high-profile education facilities are in Harrogate town, which is perceived to increase the pressure on the local highway network particularly in the AM peak which coincides with the

[6] North Yorkshire Council, 2024

[7] Nomis, 2024

'school run' period. This includes Harrogate Grammar School, Rossett School, St John Fisher Catholic High School and Harrogate Ladies College.

Many of the key 18+ educational institutions fall outside of Harrogate, such as the Universities of York and Leeds, therefore requiring residents to travel to gain further skills and qualifications. As such, it is necessary to improve access to these sites, particularly for those without access to a car. Ensuring these transport links are sustainable will contribute towards tackling the climate emergency, through encouraging increased uptake of low carbon, low emission modes of travel such as walking, cycling and public transport.

Deprivation

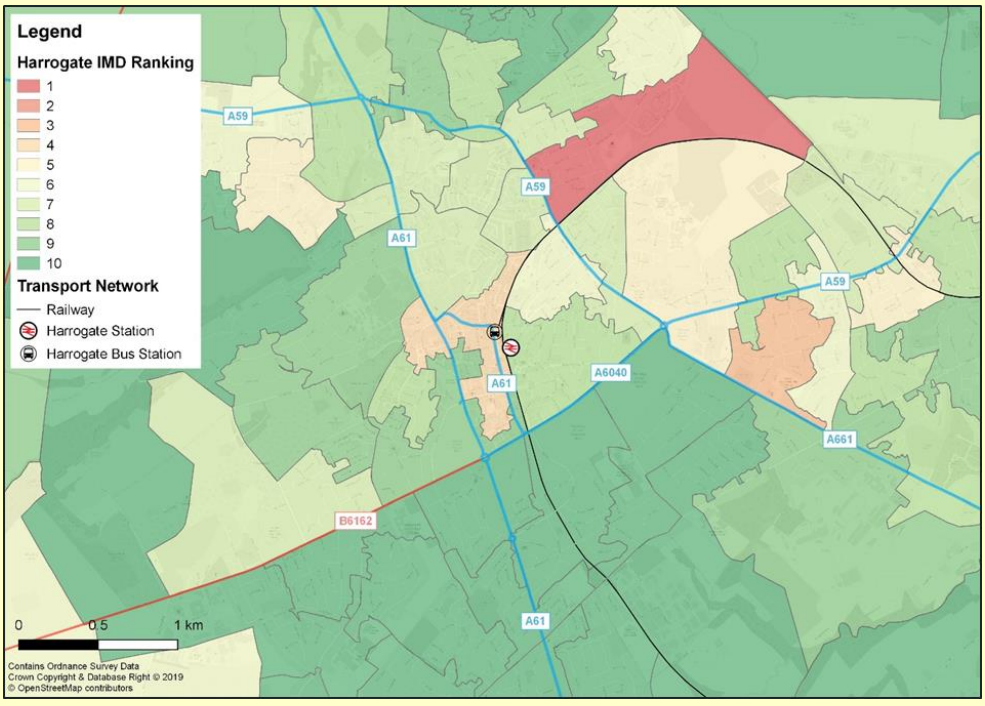
Despite the general affluence of Harrogate, the Harrogate District Profile (2018-2024) highlights pockets of deprivation, and a large gap between the most and least deprived areas.

Housing affordability in Harrogate is among the least affordable across the North of England. The high cost of renting and purchasing housing, together with a constrained housing supply and prevalence of low value employment, results in cross-boundary, unsustainable commuting patterns, as discussed previously.

The Indices of Multiple Deprivation (IMD) measures the relative levels of deprivation in small areas or neighbourhoods, known as Lower-layer Super Output Areas (LSOAs), in England. The IMD is comprised of seven weighted domains of deprivation for Income, Employment, Education Skills and Training, Health and Disability, Crime, Barriers to Housing and Services, and Living Environment.

Figure 2-4 shows that, in terms of those IMD indicators, six of the LSOAs within the Harrogate study area boundary, rank among the third most deprived of areas in the country.

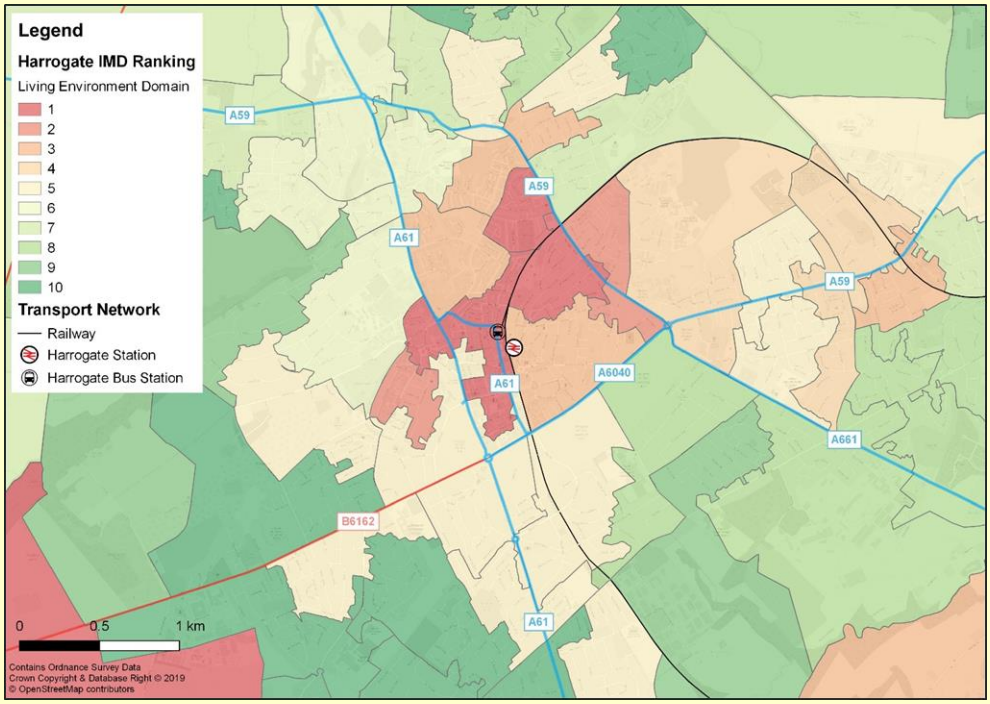
Figure 2-4: Indices of Multiple Deprivation



Living Environment Deprivation analyses the standards of people's indoor and outdoor living environment. The indoors sub-domain measures the quality of housing based on whether a house has central heating and if it fails to meet the decent homes standard. The Outdoors sub-domain contains measures of air quality and road traffic incidents involving injury to pedestrians and cycle users.

Figure 2-5 shows that central Harrogate ranks poorly in this domain, when compared to the wider area, with three areas within the most deprived 10% in the country. The centre of Knaresborough is also more deprived than surrounding areas which links with the presence of the Air Quality Management Area (AQMA).

Figure 2-5: Living Environment Deprivation



Overall, there is a degree of variation in deprivation within Harrogate with some of the most deprived areas bordering some of the least deprived areas. As such, there is potential to better connect areas of deprivation, particularly in terms of sustainable transport provision and access to the town centre and gateway area. This would enhance access to employment and education opportunities, in addition to other amenities and services, which are critical to delivering opportunity for all.

The scheme will deliver active and sustainable links across the town centre, improving connectivity to the wider region and providing better access to key sites including employment, educational establishments and residential areas. The scheme will also improve access to the bus and rail stations for onward travel as well as encouraging active and healthier lifestyles, helping to reduce inequality amongst communities within the town.

Car Ownership

In Harrogate, the percentage of people in 2021 with access to at least one vehicle is significantly higher than the national average, at 85% compared to 76%, respectively. Car ownership in Harrogate is also higher than the regional average which is 76%.

The high levels of car dependency across Harrogate have environmental implications, particularly given WYCA's climate emergency declaration in 2019 and ambition to become a net zero carbon economy by 2038, along with wider national targets for net zero. Therefore, in light of local, regional and national policy, there is a need to reduce dependency on private vehicles and encourage a shift to more active and sustainable modes (walking, cycling, rail and bus).

The scheme will help to decarbonise local transport through the provision of a multi-modal network of sustainable infrastructure across the town (including better provision for pedestrians and cyclists, cycle storage parking, bus priority, etc.) and reducing the need to travel by private car. The scheme will therefore contribute to local, regional and national decarbonisation targets, supporting a shift to more active and sustainable travel.

Transport Context

Existing Transport Network

Harrogate benefits from generally good transport links, both to other areas of North Yorkshire and beyond. The town is effectively located on the crossroads of two longer distance routes (the A59 and A61). The A59 passes along the northern edge of the town and continues through the centre of Knaresborough. The A661 links to the A59, via the A658, to form the signed "through route" from the A1(M). Existing constraints on the A59 relate largely to levels of congestion which, in turn, lead to delays and unreliable journey times on the route. The A61 provides direct links from Harrogate to Leeds, to the south, and forms a connection to the A658, which links to Leeds Bradford Airport, leading to opportunities for international travel, employment and trade.

In terms of rail provision, the Leeds-Harrogate-York railway line serves several stations within the area including Harrogate, Knaresborough, Pannal, Hornbeam Park and Starbeck. Onward rail connections are available from Leeds and York, where many major UK cities including London and Edinburgh can be reached within three hours.

Bus provision consists of relatively high frequency local bus services that connect Harrogate and Knaresborough, as well as longer distance services that connect with Leeds, Wetherby and Ripon. However, congestion in Harrogate town centre negatively impacts bus service reliability. Public transport in the more rural areas, to the north of Harrogate, is more restricted, with some areas experiencing service levels that limit accessibility to essential services, and local service centres, by transport modes other than the car. The existing bus network provides a good platform to build upon further in the future, to increase use of more sustainable transport across the region.

There are also several designated cycle routes in the main Harrogate and Knaresborough urban areas, but there is potential to improve provision for cyclists on the main corridors into town and increase cycle parking provision. The local active travel provision is discussed in detail later in this section.

Harrogate's existing transport network, its challenges and the opportunities it presents are set out in further detail below.

Existing Station Gateway

Harrogate's Transport Gateway has been identified as the area to the east of Station Parade, incorporating the rail station and related operational land, the bus station, a public car park and the Harrogate Tap public house.

Harrogate Borough Council, in addition to relevant strategies and policies such as the Harrogate Town Centre Strategy and Masterplan, have identified numerous issues relating to the image and layout of the existing gateway area, specifically in terms of providing access to the rail and bus stations.

As noted previously, Harrogate Railway Station, and the area surrounding the station, acts as the gateway for visitors arriving to the town, as well as the gateway to access the wider region and key destinations and economic centres such as Leeds. Therefore, it is important that it offers a generally positive experience, whilst also ensuring ease of modal transfer and ease of access to rail services from the surrounding area.

Station Gateway: Existing Issues

The rail station is considered to provide a poor gateway experience, with limited facilities and poor visual amenity. There is also relatively poor integration of the rail station with the bus station, presenting issues for individuals arriving at the rail station and wishing to transfer on to a local bus service. The limited facilities for cyclists and pedestrians surrounding the gateway have also resulted in sub-standard interchange between rail/ bus and active modes, discouraging multi-modal trips. The ease of modal transfer will become more important as passenger footfall continues to increase in the future.

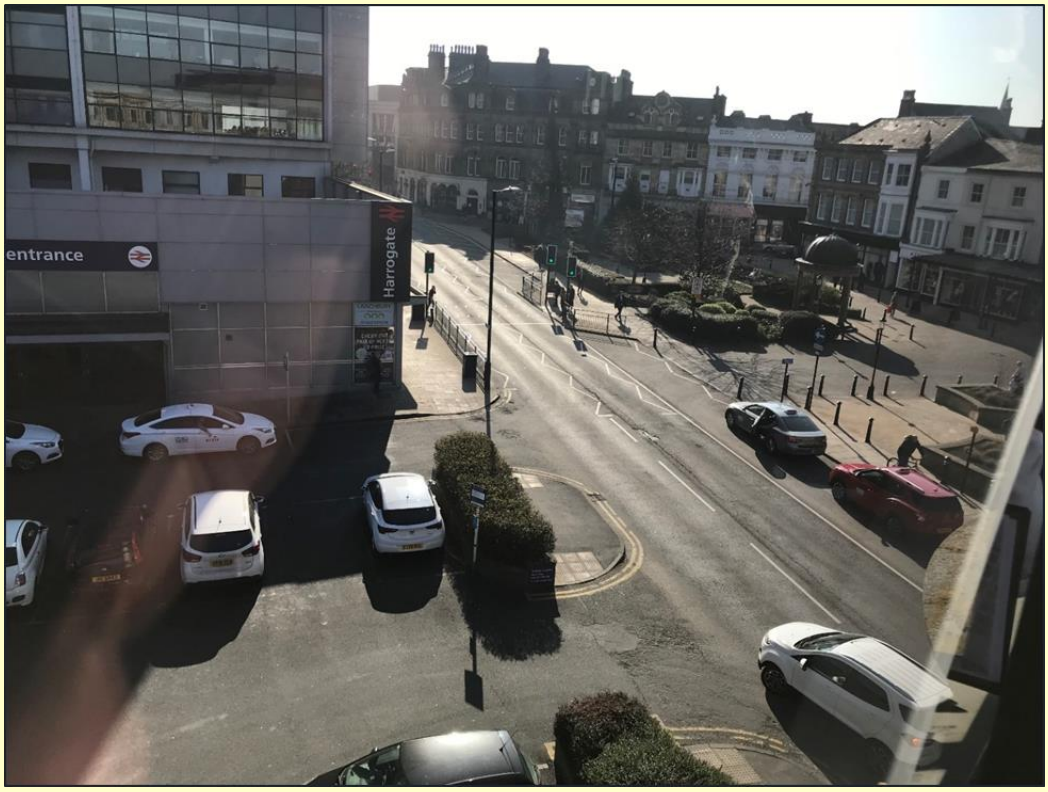
Figure 2-6 shows the area immediately outside of the rail station's main entrance; the space is currently car-centric and dominated by short stay parking provision. There is a general lack of integration with the surrounding area, town centre and bus station. There are limited cycle facilities (6 cycle stands located on the station platform) and inadequate cycling signage and infrastructure in the area immediately outside of Harrogate rail station.

Figure 2-6: Car Park Area outside Rail Station Main Entrance

Figure 2-7 shows the main link (and desire line) between the rail station and the town centre. Station Parade, which passes the station frontage, forms part of the A61 and is subject to high traffic flows during peak hours; around 18,000 vehicles use the route daily. Therefore, those arriving in Harrogate by rail must immediately cross a heavily trafficked road to access the town centre; causing issues of severance and poor pedestrian permeability. The transport network in this area is focused primarily on car travel, with limited provision for active modes (walking and cycling). Poor links with the bus station also limit opportunities for multi-modal journeys.

Overall, there is a lack of integration between the rail station and the town centre near this key transport gateway. This is due to a combination of severance, resulting from the A61 Station Parade, a lack of directional signage and poor pedestrian and cyclist links. Ultimately, there is a lack of any 'sense of arrival,' indicating to passengers that they have arrived in Harrogate town centre.

Figure 2-7: Link with Town Centre and Station Parade Pedestrian Crossing



Generally, Harrogate has a good network of cycle routes; however, provision around the gateway area is poor, and there is significant scope to improve cycle connections between the town centre/gateway and the wider area. Much of the cycle route provision within the town is composed of leisure routes that focus on more pleasant surroundings and leisure-based journeys, rather than more direct routes to key commuting destinations.

In addition to the provision of the 'Bike and Go' cycle hire scheme, there is covered cycle parking provision outside the main station entrance, in the form of Sheffield stands, which benefit from CCTV. However, provision is limited to 32 spaces, and all spaces are standard cycle stands.

This suggests that through improving key links and cycle parking infrastructure to key transport hubs and destinations, such as the Station gateway, there is potential to increase cycling mode share in Harrogate and encourage a modal shift from private car trips to cycling. This is in line with the Government's Cycling and Walking Investment Strategies (CWIS1 and 2) and would make a significant contribution to decarbonising the transport system as a precursor to achieving net-zero emissions.

Travel and Commuting Patterns

The following data and analysis consists of data from Census 2011 and Census 2021. The data from the 2021 Census has been interpreted with caution due to the COVID-19 pandemic and the associated travel restrictions.

Table 2-4 presents place of work data for Harrogate's resident population. In both 2011 and 2021 the primary employment area for Harrogate residents outside of Harrogate was Leeds (13% and

5% respectively), followed by Hambleton (3% and 2% respectively). The proximity of Harrogate to Leeds, coupled with the high value employment opportunities in the city and the highly qualified Harrogate population, is likely to explain the travel movements to access employment. The large increase in the number of employees living and working in Harrogate from 2011 to 2021 is attributable to the COVID-19 pandemic and the associated travel restrictions.

Table 2-4: Place of Work for Harrogate Resident Population

Place of Work	Number of Employees in 2011	% of Harrogate working residents	Number of Employees in 2021	% of Harrogate working residents
Harrogate	45,408	71%	68,824	86%
York	1,837	3%	1,057	1%
Hambleton	1,920	3%	1,441	2%
Bradford	1,202	2%	688	1%
Leeds	8,481	13%	4,258	5%

Table 2-5 below shows the most common locations that the Harrogate workday population have travelled from to access employment. In 2011 the largest proportion of the workday population commuting into Harrogate had origins in Leeds (9%), followed by Hambleton (4%). In 2021, the largest inward commuting flows were from Hambleton at 5%. Again, the data from 2021 shows a significantly higher proportion of Harrogate employees working within Harrogate. This will be is attributable to the COVID-19 pandemic and the associated travel restrictions.

Table 2-5: Place of Residence for Harrogate Workday Population

Place of Residence	Number of Employees in 2011	% of workers	Number of Employees in 2021	% of residents
Harrogate	45,408	71%	68,824	86%
York	2,194	3%	1,639	2%
Hambleton	2,377	4%	2,345	5%
Bradford	1,485	2%	1,302	1%
Leeds	6,019	9%	5,297	1%

Table 2-6 below shows that in 2011 the majority of Harrogate town's economically active residents (74%) stay within the district for work, with a significant proportion remaining within the town

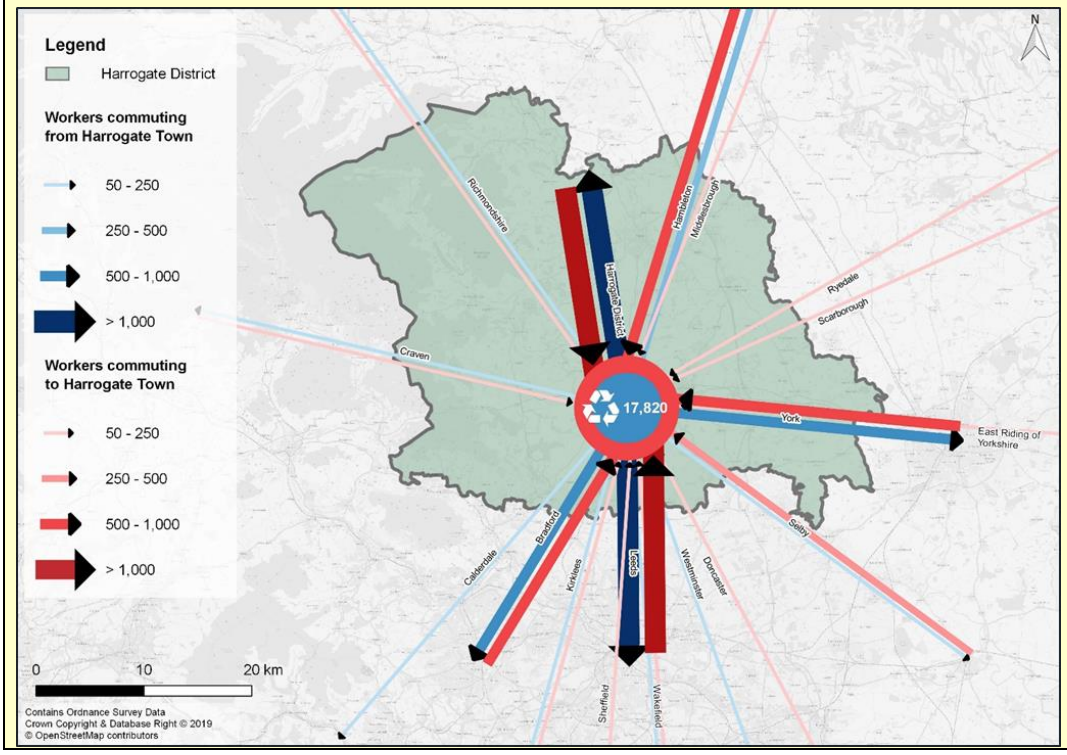
itself (52%). As with the wider district there is out-commuting to other areas, in particular Leeds (12%).

Table 2-6: Place of Residence for Harrogate Town's Workday Population

Place of Work	Total Residents	% of all Residents
Harrogate District	25,456	74%
(District excl. town)	7,636	22%
Harrogate Town	17,820	52%
Leeds	3,952	12%
Bradford	872	3%
York	799	2%
Hambleton	549	2%

Based on 2011 census data, commuting patterns to and from Harrogate, are illustrated in Figure 2-8. This shows that the largest proportion of workers traveling into the town have travelled from elsewhere in the Harrogate district, and from Leeds. Overall, there is a net inflow of workers into Harrogate town, with around 3,800 more people travelling in, than out, for work.

Figure 2-8: Harrogate Commuting Patterns



Census (2011) Journey to Work data, set out in Table 2-7, shows the main travel mode choice for commuting journeys undertaken by residents in Harrogate, compared with averages for North Yorkshire and England, regardless of the destination.

Table 2-7: Journey to Work Mode Share (Census, 2011)

Usual Residence	Car	Train	Bus	Walk	Cycle	Other
Harrogate	67%	3%	5%	16%	3%	7%
North Yorkshire	67%	2%	4%	17%	3%	7%
England	60%	6%	9%	12%	3%	11%

Travel mode share in Harrogate shows similar patterns to that in North Yorkshire and across the country, with the majority of journeys to work being made by car, and the second most popular mode being walking. In 2011, 8% of journeys to work were made via public transport (train and bus), which is below the national average of 15%.

Supplementing the above data, Census 2021 data has also been utilised in order to understand any change in travel patterns over this 10-year period. The table below sets out the change in travel mode choice for journeys to work between 2011 and 2021.

Table 2-8: Journey to Work Mode Share, Harrogate (Census, 2021)

Usual Residence	Car	Train	Bus	Walk	Cycle	Other (including working at or mainly from home)
Harrogate 2011	67%	3%	5%	16%	3%	7%
Harrogate 2021	49%	1%	2%	11%	2%	34%

As shown, the data demonstrates a significant shift in commuting patterns between 2011 and 2021. While the percentage of journeys made by private car appears to decrease (from 67% to 49%) and the percentage of people within the 'Other' category has increased significantly, this is attributable to the COVID-19 pandemic and associated travel restrictions that were in place at the time the 2021 data was collected. Travel via public transport also decreased.

While the long-term impact on travel patterns following the COVID-19 pandemic remains uncertain, research has been undertaken to understand the extent of change in people's travel

choices from the pre-pandemic period (between January-March 2020), compared with 2022 travel patterns[8]. The key findings were as follows:

- The proportion of people travelling by public transport has fallen from pre-pandemic, 63% to 48% (bus), and 63% to 43% (train) in November 2022. Despite this, Leeds Railway Station is now experiencing higher usage levels than pre-COVID, suggesting that rail trips have the potential to increase further at other nearby stations, such as Harrogate.
- Rail use patterns appear to have changed, with more travel during weekends and Mondays and Fridays becoming quieter days of travel.
- The proportions of people walking and cycling in 2022 remained a little below pre-pandemic levels.
- The proportion of people travelling by car in 2022 was similar to that in the three months before the pandemic.

Therefore, the 2021 Census data should be interpreted with caution.

In light of the above, the commuting movements (to, from and within the Harrogate area) need to be managed effectively in order to reduce the environmental impacts resulting from commuting trips made via unsustainable, carbon-heavy travel modes, such as the private car. This highlights the importance of providing accessible, sustainable connectivity between Harrogate and the wider region via public transport, particularly to Leeds, as well as improving local transport options to support a mode shift on the local network for internal travel. This can be achieved through improving links to the Harrogate Station Gateway area via active modes, facilitating multi-modal journeys and reducing the propensity to drive.

The delivery of the Harrogate Station Gateway TCF scheme will help deliver against NYC's priority to 'promote and encourage active travel including walking and cycling' and 'to support and encourage an effective and efficient public transport network.' This will also support better local and regional access to opportunity and higher paying employment.

Car Parking

As highlighted previously, car ownership in Harrogate is higher than the national average. Levels of car use for travel to work are high across the Harrogate area, but decreased as a result of COVID-19, with the increase in working from home and travel restrictions in place.

Harrogate has a good supply of car parking, particularly in the town centre. There are 33 car parks across the district in addition to both free and Pay & Display on-street parking. Occupancy data for Harrogate town centre, provided by HBC for the Harrogate Congestion Study, demonstrates that car parks were operating significantly below capacity which suggests that parking supply currently outstrips demand. The availability of parking, and the comparably low cost, may be contributing to

[8] *Our Changing Travel – How People's Travel Choices are Changing (November 2022). Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1165693/our-changing-travel-how-people_s-travel-choices-are-changing.pdf*

the high level of car use within the town, particularly for short, internal trips which could potentially be shifted to other, more sustainable modes.

This suggests that there is potential to reduce the propensity to drive in Harrogate and encouraging behaviour change through increasing the attractiveness of other, more sustainable modes such as walking and cycling. Reallocation of highway space to support this also brings about a natural reduction in the attractiveness of car travel where it is not essential. The Harrogate TCF scheme will help encourage this shift through providing high-quality infrastructure and more opportunities for sustainable travel. This would reduce dependency on private cars and the associated vehicle emissions, as well as fostering better outcomes for residents in terms of physical activity and health.

Active Modes

Cycling

There are several designated cycle routes in the main Harrogate and Knaresborough urban areas, some of which are entirely off-highway whereas others are composed of a combination of on and off-highway sections. Standard blue cycle route signage is prevalent throughout the town to direct cycle users towards key destinations.

Most of the existing cycle network is made up of on-carriageway sections that are predominantly on quieter roads; no specific cycle provision is provided on these routes over and above signage. Cycle routes on the main highway corridors (A61, A59 and A661) are limited but there are various points where cycle routes cross these corridors, and Toucan crossings are provided in some locations. Oatlands Drive has on-carriageway provision in the form of advisory cycle lanes between Knaresborough Road and Hookstone Drive.

Several of the on-highway routes provide links across the town on roads that are lightly trafficked and feature lower average speeds. The main constraint of the quiet route network is that, in some cases, the routes are not the most direct way of reaching key destinations, such as the town centre, as the use of quiet roads has been prioritised above accommodating routes in alignment with desire lines.

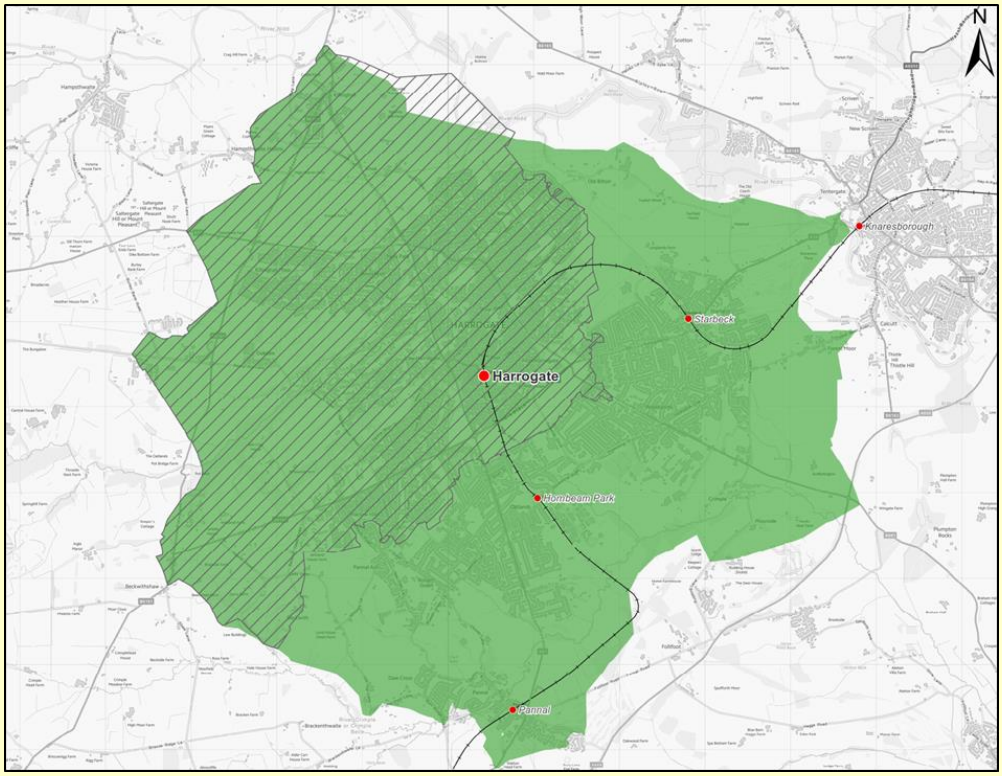
There are a lack of cycle routes and limited cycle infrastructure on the main highway corridors in the town. The busy nature of these roads and the lack of cycle infrastructure is likely to form a barrier to cycling and may be a contributing factor to incidents involving cycle users on these routes. Cycle parking is available in the town centre but a lack of sufficient cycle parking near key destinations, however, is an issue and may be a barrier to encouraging higher rates of cycling.

Considering the above, there is potential to improve provision for cyclists on the main corridors into town and increase cycle parking provision at key town centre destinations. This would help alter perceptions of cycling and show that it is a safe, convenient and viable travel mode. This will help to increase the uptake of cycling, in line with the UK's CWIS 1 and 2, and also contribute towards the government's climate emergency and net zero agenda, in particular helping to address the need to develop infrastructure which supports the rebalancing of movement to more sustainable modes.

In terms of accessibility for cycling, Figure 2-9 shows the area that is within a 20-minute cycle journey of Harrogate Rail Station. This shows that it is possible for all the central Harrogate area, in

addition to surrounding residential areas (totalling almost 80,000 residents), to access the rail station within 20 minutes or less, on bike.

Figure 2-9- 20-minute Cycle Catchment: Harrogate Rail Station



Analysis of accident data, undertaken as part of other studies, shows that the number of cyclist and pedestrian casualties is relatively high on the key routes in Harrogate. This is likely to be a result of the high traffic flows and resulting congestion on roads into the town. It is considered that this, and the resulting perception of travel by these modes being unsafe, is likely to be contributing to a suppressed demand for cycling.

As a result of the above, levels of cycling in Harrogate are relatively low and this is despite the town centre, and the transport gateway area, being within a very accessible distance for much of the local population. This suggests that there is potential to increase the proportion of trips to and from the station by bicycle. The scheme will deliver improved cycling infrastructure that would help to address issues of safety (real and perceived), particularly for commuting trips.

Walking

In terms of journey to work mode share, in 2011 Harrogate had a relatively high proportion (16%) of people that walked to work. This declined to 11% in 2021, however the proportion of residents working from home increased significantly as a result of the COVID-19 pandemic. While slightly lower than the North Yorkshire area (17%), it is higher than the national average of 12% in 2011. As shown in Table 2-5, this can be attributed to the fact that the majority of workers in Harrogate (71% in 2011 and 85% in 2021) are Harrogate residents.

Figure 2-10 below illustrates the areas that are within a 20-minute walking journey time of Harrogate Rail Station. It is possible for those within most of the town centre area, and some parts

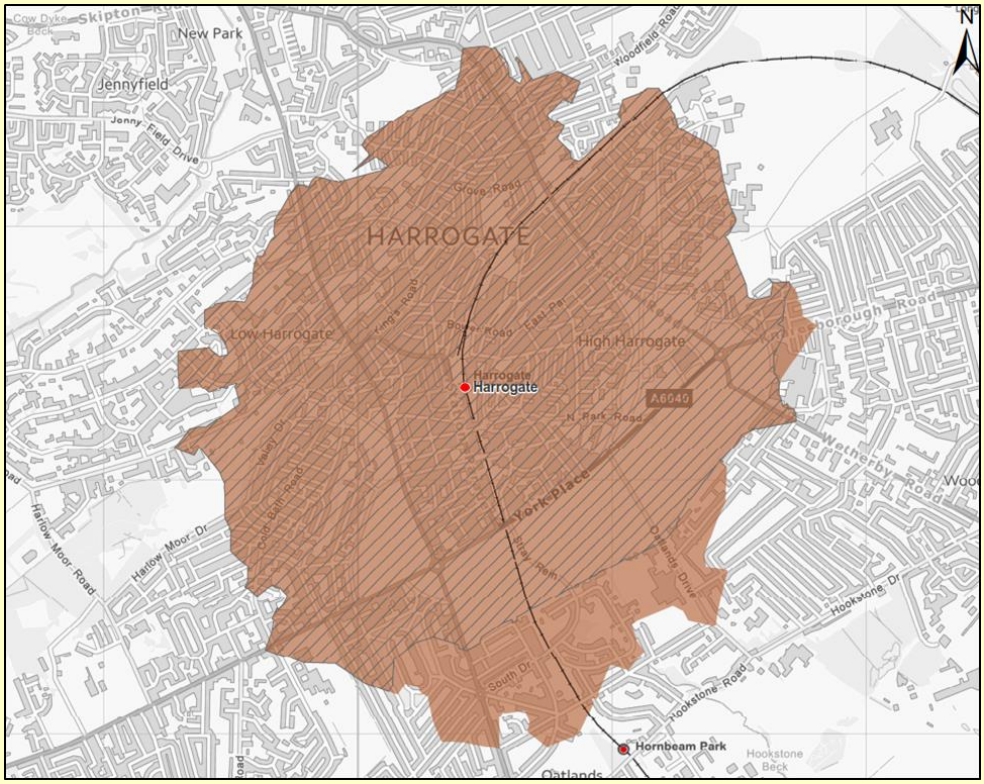
of the wider town, to access the station on foot within 20-minutes. It is estimated that almost 19,000 people live within a 20-minute walk of the station.

Pedestrian routes to the Rail Station include footways adjacent to Station Parade (A61), crossing Harrogate on a north-south basis. Harrogate Bus Station is located on the eastern side of Station Parade to the north of the rail station, where the footway passes through a series of bus stops. Station Parade passes the rail station frontage and the main entrance to the station.

In terms of pedestrian facilities at the rail station, there is a formal pedestrian crossing directly outside the station entrance connecting the station to an area of public realm to the west of the station. The station frontage is dominated by a relatively busy road (18,000 Annual Average Daily Traffic (AADT)) which creates a relatively unwelcoming arrival point. There is a secondary access to the station which leads directly to the southbound platform to the east of the station. This access is via a car parking area accessed from East Parade. This is an area dominated by car parking with very limited infrastructure and signage for pedestrians.

Although the mode share for those walking to the station is reasonably high, the catchment area for walking suggests there may be potential to further increase walking levels to the station if access improvements are delivered.

Figure 2-10 - 20-minute Walk Catchment: Harrogate Rail Station



Rail

The Harrogate area is relatively well served by rail, including Harrogate Station with regular services to Leeds and York (up to 4 trains per hour). The York-Harrogate-Leeds line connects through the stations within the town with Leeds to the south and York to the east. Harrogate

station is the most used station in the county, while Knaresborough and Hornbeam Park are ranked 6th and 7th respectively.

Harrogate Rail Station is the principal station within the local authority and is located on the eastern edge of the town centre. The station is well located for serving the town centre and the main attractions within Harrogate. Harrogate Bus Station is located immediately to the north of the rail station providing potential for a convenient interchange facility.

Harrogate Rail Station has two platforms and its services connect with York and Leeds. Typically there are three services to York and to Leeds per hour throughout the day. Journey times to York are typically around 40 minutes and to Leeds are around 35 minutes. Services at Leeds and York stations provide onward connections to the rest of the UK. In addition, there are currently twelve direct services each day between Harrogate and London Kings Cross. The average journey time by train is 2h 52m and the service is operated by London North Eastern Railway[9].

However, despite having strong rail connectivity, the rail commuting mode share in the Harrogate district was relatively low (3%) and less than half of the national average proportion of 6%, as recorded in 2011. Given that Harrogate is well served by rail, this suggests that there may be potential to increase the modal share of rail, if improvements in areas such as station accessibility are delivered. Furthermore, through encouraging increased uptake of rail travel, this will alleviate pressure on the local road network through a reduction in vehicle traffic, therefore reducing congestion and the associated vehicle emissions, and improving air quality.

Annual station usage figures, for Harrogate station, are set out below in Table 2-9.

Table 2-9: Annual Station Usage - Harrogate

Station	2016/17	2017/18	2018/19	2019/2020	2020/21	2021/22	2022/23
Harrogate	1,649,306	1,697,926	1,661,406	1,770,554	352,872	1,211,846	1,502,560

The data shows that Harrogate station has a long-term trend of increased passenger entries and exits, from 2016 to 2020. Station usage during 2020/2021 is significantly less than the previous year due to COVID-19 and the associated travel restrictions. However, since then rail usage has increased again, with Harrogate Railway Station recording 1,211,46 entries and exits in 2021/2022. This increased by 24%, to just over 1.5 million in 2022/23. While this figure has not yet returned to pre-pandemic levels, it reflects significant growth in rail usage since the previous year and suggests there is still potential to increase Harrogate's rail patronage further, and return to pre-Covid levels.

Through enhancements to the Harrogate Station Gateway area and improving access to the town's rail services, this would improve the experience for existing rail users, as well as supporting increased uptake of rail travel, providing greater resilience to any future increases in rail demand.

[9] National Rail Enquiries, 2024 (journey time as at September 2024)

In addition, investment in Harrogate Station Gateway would complement the proposed upgrade of the Leeds – Harrogate – York Railway line, forming part of NYCC's Strategic Transport Prospectus for North Yorkshire; both of which would support and emphasise Harrogate's position as a strategically important gateway.

Station Accessibility

Journey time analysis has been undertaken in order to determine levels of accessibility to Harrogate Station, in the AM peak, in line with NYCC's LTP4 targets. The data demonstrates that Harrogate Station is accessible for a significant proportion of the local population, with approximately 107,000 people theoretically able to access the station within a 20-minute journey time (albeit by car).

Considering other modes, around 19,000 can access the station on foot within a 20-minute walking journey, around 79,000 people live within a 20-minute cycle catchment of the station, and almost 48,000 could undertake a journey within 20 minutes by bus. This demonstrates significant potential for travel into the town, and specifically to the rail station, by modes other than the car.

Station User Surveys

In 2017, Station User Surveys were undertaken at ten North Yorkshire stations, including Harrogate. Journey patterns were analysed to understand where respondents had travelled from, to access Harrogate station for out bound services. The results showed that people travelled from many areas of the district to access the station with smaller numbers travelling from outside of the district. Most of the station users surveyed however, travelled from within the main built-up area of Harrogate to access the services. This limited catchment may be a result of the number of other locally available stations serving users from other areas and could also be linked to issues of congestion on routes into the town centre.

The catchment pattern described emphasises the importance of ensuring good, local level, accessibility to Harrogate Station, particularly given the consistent levels of growth in passenger trips (prior to the COVID-19 pandemic). Journeys from within the urban centre of Harrogate have the greatest potential to be made by active travel modes (walking and cycling); so it is therefore critical to ensure that walking and cycling infrastructure is provided and is fit for purpose to accommodate travel by these modes.

The mode share of respondents, for their travel to Harrogate station for use of an outbound service on the day of the survey, is set out in Table 2-10.

Table 2-10: Travel to Harrogate Station Mode Share	
Travel Mode	**Respondents**
Car/van - as driver	5.2%
Car/van - as passenger	18.1%
Car subtotal	23.3%
Taxi	10.5%
Bus	7.9%
Train	3.4%
Cycle	0.5%
Walked	54.5%

The data shows that the highest proportions of respondents arrived at the station on foot (54.5%), and by car (23.3%) - a much higher proportion of those arriving by car were passengers rather than drivers. The proportion of respondents accessing the station on foot correlates with the results showing the station catchment and the level of local area origins.

Despite the localised journey origins, a small number of journeys to the station are made by bus (7.9%) and only 0.5% of journeys to the station were made by bike. This may suggest a lack of appropriate infrastructure to cater for these modes and/or a perception of poor interchange facilities.

Bus

Harrogate town is better served by public transport than the more rural areas in the district. The Local Plan notes that large parts of the district do not have access to an hourly bus (or rail) service.

The bus network within the Harrogate urban area consists of a mixture of local services that operate in loops within the Harrogate and Knaresborough area, in addition to longer distance services connecting with destinations such as Leeds, Wetherby and Ripon.

As described previously, Harrogate bus station is situated adjacent to the Rail Station (approximately 150m between them), in the town centre, off Station Parade. As set out in the NYC Bus Service Improvement Plan (BSIP), the most frequent bus services in the county are found in Harrogate. These include:

- The Service 1 group between Knaresborough and Harrogate running every 10 minutes;
- Harrogate town services branded as 'Harrogate Electrics,' running up to every 20 minutes using zero emission buses; and
- The high-profile Service 36, running up to every 10 minutes between Ripon, Harrogate and Leeds using high specification luxury double deck buses.

There are 22 operators with registered local bus services in North Yorkshire, operating from 32 sites, including the Harrogate Bus Station. The largest operator in Harrogate is Transdev, which also covers several other parts of the county.

The three largest operators in the county broadly align with the three main commercial bus networks, Arriva in Selby, East Yorkshire Buses in Scarborough and Transdev in Harrogate. National Express also has a service (between London and Ashington in Northumberland) that calls at Harrogate Bus Station.

Following a successful Zero Emission Bus Regional Areas (ZEBRA) funding bid by North Yorkshire County Council, £7.8 million will be contributed towards the £21 million being invested by Transdev. This will see the entire Harrogate depot converted to electric bus operation and additional opportunity charging technology for Harrogate Bus Station.

However, congestion in the town centre impacts the current bus service reliability and negatively affects patronage levels. Given the high volume of in/out-commuting to the area, this also has economic impacts in terms of staff productivity, recruitment and retention. One of the five targets set by NYC as part of the latest BSIP is to improve punctuality in the three main urban centres of Harrogate, Selby and Scarborough. As described in the BSIP, as a predominantly rural county, North Yorkshire does not suffer from widespread congestion but there are significant issues in Harrogate, as well as in Scarborough, Selby and Malton.

Harrogate's levels of cross-boundary commuting (mainly by car) and high private vehicle dominance, suggests that there is scope to encourage a modal shift towards travel via bus. This would be supported with the scheme's proposed bus priority measures, providing better opportunities for multi-modal trips, as well as facilitating safer and more convenient access into the bus station with pedestrian and cyclist improvements.

The scheme will upgrade crossing points, with accompanying signal upgrades to MOVA technology. This will link the upgraded crossings, allowing better management and co-ordination of the road network. Bus journey times will improve with the new bus lane and signalling technology, which can detect an approaching bus and prioritise its journey, resulting in quicker and more reliable journey times for bus users.

The scheme's proposed bus improvements will support the realisation of NYCC's LTP4 Objective 3 "Access to Services" and Objective 4 "Environment and Climate Change". In delivering bus priority measures and enhancing the station gateway area, this will support mode shift away from the private car, while capitalising on the new electric bus services to be delivered as part of the ZEBRA and Transdev investment. This will result in lower carbon emissions, contributing to the Government's carbon net-zero target.

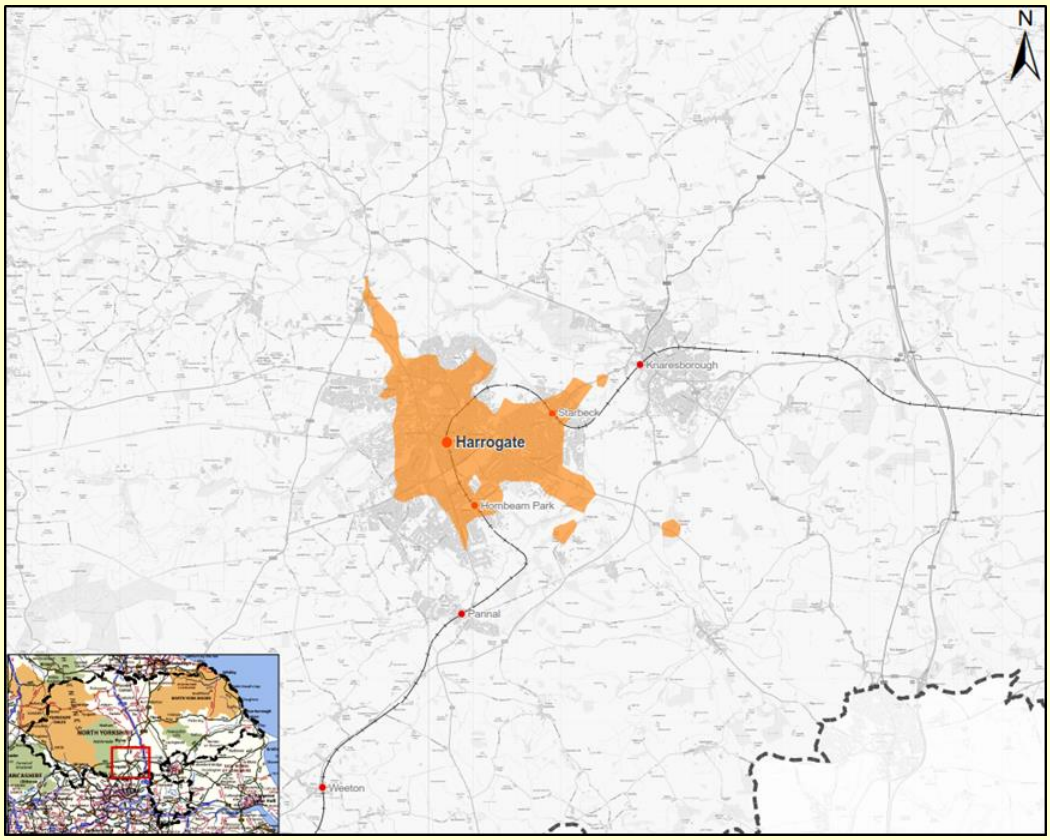
Harrogate Railway Station Accessibility via Bus

In terms of integration between bus and rail, the stations are situated near to one another which theoretically should support good integration between modes. However, according to the Station User Surveys, the mode share of people accessing the rail station by bus is low, only at 7%. The ease of transfer between modes will become more important as passenger footfall continues to

grow in the future, with on average 2.57% growth expected to occur up to 2043[10]. Provision of good accessibility to Harrogate Rail Station by a range of non-car modes is essential to reduce impacts of congestion that may result from increased demand for travel to the rail station.

In terms of accessibility of the rail station, Figure 2-11 illustrates the areas that can reach Harrogate Station within a 20-minute journey via bus. This is based upon bus timetabling information, available for services in the area and it also includes the walk time to and from bus stops, as part of the 20-minute journey time, by considering the origin (areas of population) and destination (nearest bus stops to the rail station) for journeys during the morning peak.

Figure 2-11 - 20-minute Bus Catchment: Harrogate Station



This shows that it is possible to reach Harrogate Rail Station from many areas of the built-up area of Harrogate within 20 minutes; this catchment area totals approximately 49,000 local residents.

Bus services in North Yorkshire, and nationally, were significantly impacted by the COVID-19 pandemic and associated lockdown restrictions. This was evident in patronage numbers. However,

[10] Regional Urban Market Study, Network Rail (October 2013) projected that rail demand for stations from which people primarily commute to Leeds would rise by 114% over a 30-year period up to 2043

this patronage in the county has recovered well, with fare paying passenger numbers recovering most strongly, partly due to the £2 fare cap introduced from January 2023[11].

This suggests that there may be potential to increase bus usage further in the town, something that would be supported by the provision of improved access to the bus station, bus prioritisation, better integration of the bus and rail stations and creation of a more attractive streetscape in the gateway. Each of these would be facilitated through the scheme's delivery.

Congestion

Congestion is a significant and well-documented issue in Harrogate, leading to increased journey times and poor reliability of the local bus network. The key contributors to congestion are summarised below.

Reliance on the Private Car

As stated earlier, Harrogate has higher than average car ownership levels and, resultingly, high levels of car use. This reliance on the private car exacerbates existing issues of congestion on the local road network; therefore making other modes more attractive is key to addressing this.

Analysis, undertaken as part of NYCC's Harrogate Congestion Study, identified that the radial routes in Harrogate carry very large volumes of traffic. The highest flows were recorded on the A59 Skipton Road, to the east of the town centre, with an AADT of almost 29,000. Furthermore, DfT count data for the York Place approach to the Prince of Wales Roundabout, which is one of the main routes into the town centre, indicated an AADT of approximately 24,000 for this section of the road network.

As a comparator, the main radial routes into the city of York carried a broadly similar amount of traffic to those into Harrogate town centre, despite a significant difference in worker population; approximately 34,000 people work in Harrogate urban area, while more than double (71,000) are employed within the York urban area.

Journey Time and Average Speed

Analysis for routes through Harrogate revealed significant delay along some key routes into/out of Harrogate. The A661 has journey times almost 50% longer during peak times, when compared with inter peak times; with some sections along the A661 experiencing journey times increasing by up to 138%. The average speed of traffic through the main urban area also reveals the existing congestion with some sections on the A61 having average speeds of around 11kph during peak times.

High Proportion of Short Journeys

Data shows that almost half of all trips being made, in the busiest periods, both start and end within Harrogate; these trips are generally short (less than 2.6km/1.6miles on average), are primarily commuter trips and are mostly made by car. These trips have a significant impact upon

[11] BSIP 2024 Refresh Proposal, North Yorkshire Council, 2024

congestion in the town but also present significant potential to shift journeys to more sustainable modes, particularly walking and cycling.

Commuting Patterns

In addition to the internal commuting journeys discussed above, cross boundary commuting, both into and out of Harrogate, also results in high traffic flows on key routes in peak hours. The highest proportion of trips are to nearby Leeds, most likely to access higher paid, higher skilled jobs; conversely, there are significant numbers of commuting trips from Leeds to Harrogate. The level of traffic on these routes is unsuitable for the category of the local roads, contributing to the congestion and unreliable journey times that are synonymous with the town.

Visitor Travel

Harrogate's status as a historical spa-town, and its strong tourism and hospitality-based offering, result in a significant amount of visitor journeys which result in congestion throughout the day, rather than being confined to the traditional morning and evening peaks. The visitor economy is expected to continue to grow, and with it the number of journeys being made to Harrogate. Therefore alternative modes of transport need to be made more attractive for these journeys if these trips are to be accommodated on the local network without worsening existing conditions.

Education

Harrogate has a strong level of educational and academic attainment and is located within relatively close proximity to large urban centres such as Leeds, resulting in a significant amount of cross-boundary education-based journeys.

Air Quality

Local authorities in the UK have statutory duties for managing air quality under Part IV of the Environment Act 1995. In line with this, NYC is required to carry out regular reviews and assessments of air quality against standards and objectives set in the Air Quality (England) Regulations 2000 and the Air Quality (England) (Amendment) Regulations 2002. If one or more of the air quality objectives for each of the seven pollutants specified in the regulations are exceeded, an AQMA must be declared.

There are four AQMAs within the Harrogate area. These are located on some of the busiest and most congested routes into Harrogate suggesting that traffic levels and congestion are key contributors to the air quality issues experienced within these areas:

- Bond End in Knaresborough;
- Low and High Skellgate in Ripon;
- Wetherby Road in Harrogate ; and
- York Place in Knaresborough.

As set out in the NYC Air Quality Action Plan (2024-2029), the major source of pollution within North Yorkshire is from road transport, both NO_2 and PM_{10}. It is acknowledged that, whilst the pace of technological change within the automotive sector is accelerating and vehicles are gradually becoming cleaner and more efficient, the level of economic growth and development outlined within this strategic case will result in a higher number of private vehicles using the local

road network and, as a result, various mitigation strategies will still need to be implemented to manage air quality issues.

Anticipated Future Conditions

Population Growth and Societal Changes

The population of the wider Harrogate district is forecast to increase substantially over the Local Plan period up to 2035. This includes the target to provide a minimum of 14,000 new homes (see below) much of which is planned for the existing urban area, including Harrogate town centre.

The proportion of Harrogate's resident population aged over 65 is forecast to increase by 46% by 2043, based on 2018 subnational population projections. This is slightly above national projections (45%) and will result in lower economic activity, reducing the ability of the local labour force to support economic growth and development.

If population growth follows current established patterns, this will place increased demand on infrastructure, particularly the local transport network, as the larger resident population looks to access employment, services and facilities. This highlights the need to provide accessible transport infrastructure, which will support sustainable growth.

Future Investment and Planned Development

The Local Plan for Harrogate sets out a requirement to provide a minimum of 14,049 new homes and 38ha of employment land by 2035. Within the town centre itself, Harrogate Borough Council developed a Station Gateway Masterplan to guide the redevelopment of the Station Parade area within the immediate vicinity of the station to provide new high-quality office/commercial and residential space.

The proposed TCF Harrogate Station Gateway scheme has the potential to support this development through making the area more attractive to investors, employers and residents.

The planned growth across Harrogate will directly impact the local transport network, with a forecast 5,700 additional trips made in each of the peak hours by 2035. If current travel trends continue, this will compound the existing issues of congestion, delays and unreliable journey times that threaten to limit future economic growth and diversification. The transport network will face increasing pressure associated with the growing travel demand; as such, intervention will be required to alleviate pressure on the network and enhance Harrogate's resilience to future growth.

Furthermore, in light of the climate emergency and associated local, national and regional targets for net-zero, there is a need to ensure this growth is able to take place sustainably. A key part of this requires rebalancing movement towards active and sustainable modes, helping to decarbonise the transport system.

Climate Emergency

As stated in WYCA's Carbon Reduction Pathways Report, a reduction in transport emissions requires ambitious action to go beyond current national targets and policy commitments. This involves a significant reduction in private car use and a mode shift to shared, active and public

transport. This is required alongside increases in rail passenger and freight capacity, which will need to be accommodated through expansions of infrastructure and/ or service levels.

The scheme will contribute to the above requirements to decarbonise the region's transport system, enabling the region to meet net-zero emission reduction targets. Specifically, it is anticipated that the provision of new pedestrian and cycling infrastructure and improving public transport access is expected to encourage a modal shift to active and shared modes, thereby avoiding trips that would otherwise have occurred by private vehicle.

Forecast Rail Passenger Growth

Rail patronage has rebounded in the region to around 80-90% of pre-pandemic levels, but there is a growing consensus that there will be lasting impacts that change travel patterns in the long term as a result of the pandemic. However, there is now a greater understanding of post-COVID travel patterns and the strength of rail demand. As such, there is a clear opportunity for rail capacity to support local, and national ambitions for decarbonisation and inclusive economic growth.

Improved accessibility to the station is required if future rail demand is to be catered for. Improvements to infrastructure to enable people to access the station by sustainable and non-car modes are essential to reduce the burden on the local highway network and associated problems, including poor air quality. It is considered that, through accessibility improvements to Harrogate Station, future passenger growth will be supported.

Resilience and Future Ready

The resilience of town centres and the need to be future ready is an increasing national priority. As part of the development of the Harrogate transport network, it will be important to consider the town centre's function given key trends:

- The change in shopping habits and how services are accessed;
- Community led businesses;
- An ageing and growing population;
- Health and wellbeing and an increasing environmental focus.

Key to ensuring the resilience of town centres is a shift towards low-carbon, sustainable ways of living. The transport system plays a key part in this, having significant potential to decarbonise and reduce emissions across Harrogate town centre, through a shift towards more sustainable modes of travel (walking, cycling, bus, train). This would support the move towards tackling the climate emergency and meeting local, regional and national targets for net-zero.

Economic Growth and Strategic Connectivity

NYCC's LTP4 sets out the key objectives of 'Economic Growth', 'Access to Services' and 'Healthier Travel', recognising the need to ensure that the transport network and services are as reliable and efficient as possible, to support the existing economy and facilitate future economic growth.

The growth set out in the Local Plan will place increasing pressure on Harrogate's existing transport network. Increases in congestion and an inability to accommodate the growing number of trips has the potential to limit future economic growth, through increasing delays, unreliable

bus journey times, and more time sat in traffic, resulting in less productive time for commuters and businesses, therefore reducing productivity and business efficiency.

Further investment is required to ensure greater resilience to support and accommodate future economic growth in Harrogate. Improvements to the Harrogate Station Gateway will enable the station to fulfil its potential as a key gateway. Improved, strategic connectivity for residents with employment opportunities in Leeds and across the wider region will help support sustainable economic growth and contribute to continuing to make Harrogate a vibrant and appealing place to live and work.

Future 'without scheme' Conditions

There is a clear need to invest in Harrogate and the station gateway area. Without adequate intervention, existing issues relating to the gateway infrastructure, accessibility, connectivity, air quality, out-commuting and growth/development constraints, are expected to deteriorate. Specifically,

- Existing congestion issues will be further exacerbated without sustainable transport infrastructure improvements;
- Plans for new development, such as the Station Parade development near to the gateway area, may be adversely affected without sufficient sustainable travel opportunities and associated infrastructure improvements;
- Insufficient progress may be made towards tackling the AQMAs in Harrogate and improving poor local air quality; and
- Harrogate and the wider region will not be able to take full advantage of rail and bus network enhancements, nor will it be able to provide a station gateway befitting of current and future passenger growth levels.

Summary of Current and Future Issues

Summarising the strategic drivers within this case, Table 2-11 presents an overview of the key issues and challenges currently facing Harrogate followed by the anticipated future conditions and issues likely to arise without the scheme.

Table 2-11: Strategic Summary of Issues	
Summary of Current Issues	
Context	Harrogate is a principal town and plays an important role in the regional economy. A distinct place with a unique identity, Harrogate has a strong visitor economy and is a key service centre with important strategic links to the wider region. However, there are a number of important issues that need to be addressed to ensure that Harrogate is able to adapt and deal with existing problems and a range of future challenges.
Local economy challenges	There is an economic imbalance caused by low value local jobs/ a low value economy and a highly skilled/educated resident population. This results in a less resilient local economy, cross-boundary commuting and less sustainable travel patterns, with scope to achieve shift to more sustainable modes.
Congestion and journey time reliability	Demands on the existing transport network include congestion and journey time unreliability, adversely impacting Harrogate's public transport patronage and economic performance. There is an opportunity to improve sustainable transport accessibility to reduce these demands and unlock development/growth, whilst also taking full advantage of forthcoming rail and bus enhancements.
Environmental challenges	There are four designated AQMAs within the Harrogate area, which are located on some of the busiest and most congested routes into Harrogate, suggesting that traffic levels and congestion are key contributors to air quality issues.
Strategic connectivity	Harrogate Rail Station provides a key strategic gateway, providing an important link to services and opportunities across the wider region. Given the high levels of cross-boundary commuting and high visitor numbers, there is a need to ensure strong strategic links to and from Harrogate; ensuring the town is easily accessible from neighbouring areas, as well as providing strong local links across the town.

Movements and place balance	There is generally a poor pedestrian environment and permeability between the Bus Station and Rail Station, which acts as a constraint to accessing sustainable modes and the transfer between bus and rail services in the town.
Severance	There is severance between the gateway area (which includes Harrogate Rail Station) and the town centre, largely caused by the A61/Station Parade road, which constrains access to the station gateway from the town centre by sustainable modes. This also contributes to a poor quality gateway experience for both locals and visitors.
Rebalancing to active modes	Harrogate has poor cycling provision in a number of areas, including no dedicated cycle route connecting with the front of Harrogate Rail Station, or the Bus Station, resulting in fewer opportunities for sustainable multi-modal journeys. There is a lack of cycle routes and limited cycle infrastructure on the main highway corridors in the town. Cycling routes from some of the most deprived areas within Harrogate are also poor, and residents in these areas are less likely to have access to a car, constraining access to opportunities both locally and across the wider region.
Summary of Future Issues	
Population Growth & Societal Changes	Harrogate has a growing and ageing population, together with significant planned development. The proportion of Harrogate's resident population aged over 65 is forecast to increase by 46% by 2043. This will result in lower economic activity, reducing the ability of the local labour force to support economic growth and development. It will also result in changes to how people access key services, meaning that urban environments will need to adapt to provide the necessary facilities and infrastructure to support the changing population.
Future Investment & Planned Development	There are strong growth and development aspirations for Harrogate and this growth will continue to put pressure on the transport network. Therefore, rebalancing movement towards active and sustainable modes, helping to decarbonise the transport system, is essential. The Station Parade area is a key development site and the proposed TCF scheme has the potential to support this development through making the area more attractive to investors,

	employers and residents.
Climate Emergency	As stated in WYCA's Carbon Reduction Pathways Report, a reduction in transport emissions requires ambitious action to go beyond current national targets and policy commitments. This involves significant reduction in private car use and mode shift to shared, active and public transport. The scheme will contribute to decarbonising the region's transport system, enabling the region to meet net-zero emission reduction targets.
Passenger Growth	Rail patronage has rebounded in the region to around 80-90% of pre-pandemic levels. There is now a greater understanding of post-COVID travel patterns and the strength of rail demand. As such, there is a clear opportunity for rail capacity to support local, and national, ambitions for decarbonisation and inclusive economic growth.
Resilience & Future Ready	The resilience of town centres and the need to be future ready is an increasing priority and will continue to have an impact on Harrogate and the town centre. This is particularly important given the and associated targets for net-zero; a reduction in transport emissions will play a key role in achieving this ambition.
Economic Growth and Strategic Connectivity	Strategic connectivity both locally and across the wider region will play a key role in facilitating economic growth in Harrogate. The provision of sustainable transport links will support the movement of people and goods, ensuring this growth is good for people, the economy and for the environment.

Strategic Purpose of the Scheme

Considering the above challenges, the Harrogate TCF scheme is aimed at encouraging investment in the town and supporting aspirations for economic growth by making it a more attractive place to live, work and visit. In turn, this will stimulate growth and will help address the key issues associated with a rapidly growing, ageing population and the economic imbalance resulting in a less resilient local economy, high levels of cross-boundary commuting and less sustainable travel patterns.

The scheme will deliver sustainable infrastructure improvements to respond to existing demands on the local transport network which include congestion and journey time unreliability (which adversely impact Harrogate's economic performance). There is an opportunity to improve sustainable transport accessibility, in turn reducing these demands and helping to unlock

development and growth, whilst also positioning Harrogate well for the forthcoming network-wide rail improvements and local bus enhancements.

By improving the aesthetics of the Rail Station area, through public realm and townscape enhancements, combined with delivering multi-modal accessibility and connectivity improvements, the proposals will help to deliver 'healthy streets' in the town centre. This will help to unlock growth and development within the town, such as the Station Parade development site located within close proximity to Harrogate Station.

The proposed scheme will establish Harrogate Railway Station at the heart of the town and the wider district, acting as a central sustainable travel 'hub.' The package of improvements will support modal shift towards more sustainable modes and support enhanced connectivity to employment and education opportunities both locally and across the wider region.

2.1.2 How will the scheme contribute to the achievement of the Leeds City Region's Strategic Economic Framework (SEF)?

The Leeds City Region Strategic Economic Plan (SEP) was replaced by the Strategic Economic Framework (SEF). Building on the SEP, the SEF sets out WYCA's vision for the region and their priorities for achieving this, in light of new challenges during periods of change and uncertainty.

Harrogate district previously fell within the boundary of the LCR Local Enterprise Partnership (LEP) and was a constituent member of WYCA – with established business and commuting connections. However, since the initial bid submission, the district and Borough Council no longer forms part of the administration, yet remains a strategic economic partner and neighbour.

As described previously, Harrogate now falls within the administrative boundaries of YNYCA and NYC. The new YNYCA Economic Framework closely aligns to the economic priorities, plans and policies already shaped by City of York Council (CYC) and NYC. The new Framework uses this previous work to establish the priorities and ambitions for the YNYCA that will deliver across York and North Yorkshire.

Strategic Economy Framework

The Combined Authority Vision for the region, as set out in the SEF, is as follows:

"Recognised globally as a place with a strong, successful economy where everyone can build great businesses, careers and lives supported by a superb environment and world class infrastructure."

The key priorities of the SEF are as follows:

- **Boosting productivity** - Helping businesses to grow and invest in the region and their workforce, to drive economic growth, increase innovation and create jobs.
- **Enabling inclusive growth** - Enabling as many people as possible to contribute to, and benefit from, economic growth in our communities, towns and cities.
- **Tackling the climate emergency** - Growing our economy while cutting emissions and caring for our environment.

- **Delivering 21st century transport** - Creating efficient transport infrastructure to connect our communities, making it easier to get to work, do business and connect with each other.
- **Securing money and powers** - Empowering the region by negotiating a devolution deal and successfully bidding for substantial additional funds.

The scheme aligns to each of the SEF priorities, and the contribution to each of these is outlined below in Table 2-12.

Table 2-12: Harrogate Station Gateway Improvements TCF scheme's contribution to SEF Priorities
Priority 1: Boosting Productivity
Improvements made to the active and public transport offer, through improving the safety, reliability and accessibility of these modes, will support and attract investment within the town centre. In turn this will increase the attractiveness of Harrogate as a place to work and invest, boosting productivity within the town and the wider region.
Priority 2: Enabling Inclusive Growth
The scheme will make active and public transport modes more attractive, as they will become a convenient, accessible and reliable transport option, reducing the reliance on private car travel. These improvements will help to overcome existing transport barriers that create inequality in communities in their access to employment, education and training opportunities, in Harrogate itself or further afield in the wider region. It will enable greater access to opportunities, that prior to the network improvements they may not have been able to access. Improvements to both active and public transport methods focused around the central location of the Harrogate Station Gateway will facilitate multi-modal trips. The gateway will create a safe and accessible hub for active and public transport travel in Harrogate, increasing the uptake both of these travel modes and driving a shift away from the reliance on private car travel.
Priority 3: Tacking the Climate Emergency
The proposed scheme will make a contribution to the delivery of a low emission transport network, through providing increased sustainable and active travel opportunities. It will encourage a modal shift from private car travel to more sustainable transport modes. Enhanced access to the rail station via active modes may replace those journeys that would have otherwise been made entirely by private car. In addition, the scheme includes enhancements to the public realm, which incorporate higher quality place-making, green spaces and the planting of shrubbery/trees, contributing to the enjoyment of green infrastructure in the town.
Priority 4: Delivering 21st Century Transport
The scheme will improve the standard of active and public transport facilities and routes within Harrogate, encouraging a modal shift away from private car travel. These improvements will support Harrogate towards having a low emission transport network, helping to support the town in becoming more resilient to the climate emergency.
Priority 5: Securing Money and Powers

The Northern Powerhouse Independent Economic Review (NPIER, 2016) concluded that substantial improvements in connectivity, skills, innovation and inward investment across the North are needed to tackle challenges related to the economic performance gap, productivity differences and poor productivity performance. The Northern Powerhouse agenda is to boost local economies by investing in local skills, innovation, transport and culture. Also included in the agenda is the devolution of significant powers and budgets to directly elected mayors, ensuring decisions in the North are made by the North.

The Strategic Transport Plan for the North (2024) also sets out three related strategic aims: transforming economic performance, aid decarbonisation of our transport system and enhancing social inclusion and health. The Plan highlights that to achieve the vision and ambitions, connectivity challenges need to be addressed.

The Harrogate TCF scheme will provide better transport connectivity within and between Harrogate and the wider region. This will be beneficial in terms of investment in skills, investments and productivity, which are identified in the NPIER as opportunities underpinning the economic growth.

2.1.3 Does the scheme link to other activity being delivered either within the City Region or nationally?

The Harrogate proposals form an important part of the wider infrastructure schemes in the regional TCF programme. The scheme also links to the Local Cycling and Walking Infrastructure Plan (LCIWP), which has been split into separate projects; the Harrogate Cycling Infrastructure Plan (HCIP) and the Walking Infrastructure Plan for Harrogate (HWIP), and the Harrogate Town Centre Masterplan.

Each of these projects are linked and complementary, as described below.

Transforming Cities Fund (TCF)

The TCF will, as part of the wider LCR investment plan, deliver new, transformational infrastructure and help create a step change in travel across the region. This is essential to reducing reliance on car travel and meeting the LCR commitment to becoming a net zero carbon city region by 2038.

As announced in March 2020, the LCR benefited from £317 million of investment from the TCF. This funding aims to dramatically improve people's access to public transport, cycling and walking across the following districts:

- Bradford;
- Calderdale;
- Craven;
- Harrogate;
- Kirklees;
- Leeds;
- Selby;
- Wakefield; and
- York.

Overarchingly, the LCR TCF will connect people to economic and education opportunities through affordable, sustainable transport, boosting productivity and helping to create cleaner, healthier and happier communities for the future.

The Harrogate TCF scheme will complement and be complemented by the wider LCR TCF schemes, ultimately providing a transformational change in the region's transport system by providing opportunities to make reliable, safe and attractive journeys by using public transport and by cycling and walking.

Local Cycling and Walking Infrastructure Plan (LCWIP)

The Harrogate LCWIP has been split into two projects, the HCIP and the HWIP.

The HCIP was published in 2019, and set out four cycling corridors:

- Corridor 1 – Bilton to Starbeck;
- Corridor 2 – Bilton to Hornbeam Park;
- Corridor 3 – Jennyfield to Harrogate Town Centre; and
- Corridor 4 – Hornbeam Park to Starbeck.

The HCIP sets out cost estimates for the options, carries out economic appraisal of the options and sets out the next steps. The preferred option for Corridor 2 is located close to the scheme on East Parade, while the preferred option for Corridor 3 would be accessed nearby on Cambridge Street. The proposed Harrogate Station Gateway scheme will complement these proposals.

Since 2019[12], further work has been undertaken to assess and prioritise 160 individual potential cycle corridors across Harrogate. All corridors were ranked based on the assessment, and the top priorities (alongside the existing four corridors) were given indicative timeframes for delivery. A high level value for money assessment was also undertaken for the top priority schemes. The Station Gateway proposals and the National Productivity Investment Fund (NPIF) sustainable transport package (explained in further detail below) are both short term priorities (<3 years).

The HWIP was produced as a sister document to the HCIP, to provide the area with a complete LCWIP. The HWIP identifies Station Parade and James Street as "prestige walking routes," which are defined as "very busy areas of towns and cities, with high public space and street scene contribution." For the town centre area, the report sets out the existing issues and barriers to movement and indicates that the TCF scheme will overlap with the proposals.

Harrogate Town Centre Masterplan

In 2016, Harrogate Borough Council produced 'The Harrogate Town Centre Strategy and Masterplan' which set out the Council's strategy for the development of Harrogate Town Centre in the period to 2025.

[12] Harrogate Cycle Network Development – Prioritisation Outcomes, NYC, 2024

The Harrogate Station Gateway Improvement scheme will complement the other ongoing projects within the town centre, in order to achieve the vision of the masterplan which is:

"By 2025 Harrogate Town Centre will be a leading UK destination for culture, shopping, leisure and business tourism. The unique qualities of the town centre will be enhanced to provide a distinctive visitor offer that differentiates Harrogate from its regional and national competitors. This distinctiveness will be characterised by an exceptional town centre environment, the key components of which will be:

- Public realm of an outstanding quality;
- A special blend of retail, leisure and cultural uses;
- Unique facilities for conferences and events; and
- Integrated and sustainable transport infrastructure.

The realisation of this vision will ensure that important economic benefits are delivered for local residents and businesses, and that opportunities for the sustainable development of the town centre are fully exploited."

In addition to the Harrogate Station Gateway Improvement Scheme, the Masterplan includes the delivery of Smart Parking, the Business Improvement District and the Exchange Tower and Station Bridge projects.

Harrogate Sustainable Improvement Package – West Harrogate

NYC was awarded £4.6m of funding from the government's NPIF. As part of this funding, a Sustainable Transport Package in the West of Harrogate has been developed, after the decision taken in February 2023 to not proceed with phase 2 of the Otley Road cycle path given delivery constraints.

This package recognised the need to provide a series of safety improvements and congestion relief measures along the Otley Road corridor and the delivery of sustainable transport enhancements. Consultation work is being undertaken through 2024 with the expectation that these schemes will start to be delivered in the financial year 2024/25, subject to the planned consultations being successful.

Among the planned upgrades are improvements to junctions on Otley Road including signal upgrades, traffic calming measures, new or improved pedestrian crossings as well as improved cycle signage and bus stop facilities along the road corridor[13]. The package of sustainable measures will help to improve safety and alleviate the levels of congestion currently experienced along the Otley Road corridor, accommodating the existing traffic and future growth of Harrogate, as recognised in the former Harrogate Borough Council's draft Local Plan.

Station Parade Development Site

[13] NYC, 2023 and 2024

The Station Parade area is a key development site, located within close proximity to Harrogate Rail Station. As outlined in the Local Plan[14], the proposed use of this site includes a mix of office, residential and retail space. There is a need to support this development through making the area more attractive to investors, employers and residents alike. In addition, there is also a requirement to ensure that this development can be delivered in the most sustainable way, through strong sustainable and active travel links. Without improvements to the gateway area, and enhanced sustainable and active travel accessibility, there is a risk that development will be constrained and/or delivered in an unsustainable way with an adverse impact on the local transport network.

Summary

The Harrogate TCF proposals are complementary to other ongoing and previously developed schemes. This alignment with associated projects and schemes supports the need for the Harrogate Station Gateway TCF improvements.

2.1.4 How does the scheme meet other national, sub-regional and local strategies and policies?

The proposed scheme has a strong alignment with policy and strategy at a national, regional and local level. This alignment is summarised below in Table 2-13 using a Red-Amber-Green (RAG) rating.

It should be noted that policies in relation to West Yorkshire have been retained due to Harrogate previously being a part of the WYCA, prior to the formation of the YNYCA. In addition, the local policy documents prepared by Harrogate District Council have also been retained as relevant despite the changes in local government and creation of the unitary authority of NYC.

Table 2-13: Summary of Policy Alignment

National Policies		Regional Policies	
Local Transport Note 1/24: Bus User Priority		YNYCA Routemap to Carbon Negative (emerging), 2024	
Active Travel England Guidance, 2023		YNYCA Economic Framework, 2024	
National Cycling and Walking Investment Strategy 2, 2023		North Yorkshire Council Plan 2024-2028, 2024	
National Planning Policy Framework (NPPF), 2023		West Yorkshire Bus Service Improvement Plan, 2022	
Levelling Up White Paper, 2022		WYCA Strategic Economic Framework, 2020	

[14] Local Plan, 2014-2035

Build Back Better: Our Plan for Growth, 2021		York, North Yorkshire, East Riding and Hull Spatial Framework: A Vision for Growth 2035-2050, 2019	
Decarbonising Transport: a Better Greener Britain, 2021		West Yorkshire Transport Strategy, 2017	
Net Zero Strategy: Build Back Greener 2021		Leeds City Region Strategic Economic Plan, 2016	
National Infrastructure Strategy, 2020		**Local Policies**	
Local Transport Note (LTN) 1/20, 2020		Harrogate District – Local Plan, 2020	
Sub-national Policies		Harrogate Local Cycling and Walking Infrastructure Plan (LCWIP), 2019	
TfN Strategic Transport Plan, 2024		Harrogate Town Centre Strategy and Masterplan, 2016	
TfN Decarbonisation Strategy, 2024		North Yorkshire County Council Fourth Local Transport Plan 2016-2045, 2016	
Integrated Rail Plan for the North and Midlands, 2021		A Strategic Transport Prospectus for North Yorkshire, 2015	

As is clearly shown, the interventions to be delivered as part of the scheme strongly align to policy ambitions from a national to local level. The active travel infrastructure will support improved accessibility in the town via sustainable modes, supporting mode shift and reduced emissions. Bus priority measures will support the uptake of multi-modal trips, helping to reduce congestion and improve journey time reliability. Together with the public realm improvements, this will help to deliver healthier streets within the town as well as supporting new development and growth.

2.1.5 Why is Combined Authority funding (Grant or Loan) required in order to carry out this scheme?

Funding is required to carry out the proposed improvements as the scheme is unaffordable to NYC on their own. This business case is seeking approval to draw down on DfT funding as part of the TCF award, to unlock the full potential of the scheme.

If the proposed scheme does not receive the required funding the proposals will not be delivered. This will result in the core benefits, such as enhanced multi-modal access to the railway station and increased active and sustainable travel modal share, not being realised.

Without the proposed interventions, the key issues are expected to continue to affect Harrogate and local conditions will deteriorate. These are summarised below:

- **Lack of dedicated cycling infrastructure connecting with the gateway area-** this results in less opportunity for active travel-based trips to the rail station and for sustainable modal transfer.
- **Poor quality station gateway and rail station-** there is poor public realm in and around the gateway area, poor levels of accessibility to and from the station (particularly via active travel modes), and a lack of integration with the town centre area.
- **Air quality issues and congestion-** there are four designated AQMAs located within the Harrogate area, primarily as a result of congestion, which is caused by an over-reliance on travel by private car, resulting in disproportionately high traffic flows on key routes.
- **Cross boundary commuting-** Harrogate is within a commutable travel distance to larger economic centres such as Leeds. Cross-boundary commuting is also caused by the economic imbalance, with lower skilled and lower paid jobs locally, despite a skilled and educated resident workforce.
- **Current infrastructure/ accessibility has the potential to constrain development-** Harrogate has a significant scale of planned development. For example, the Station Parade area is a key development site and there is a need to support this development through making the area more attractive to investors, employers and residents alike. In addition, there is also a requirement to ensure that this development can be delivered in the most sustainable way, through strong sustainable and active travel links.
- **Areas of deprivation with constrained access to opportunity-** whilst there is a perception that Harrogate is an affluent area, there are pockets of deprivation, particularly within the Woodfield Ward. Key factors which contribute to areas of greater deprivation include a lack of private car access and constrained access to opportunity caused by limited sustainable and active travel options.

Without the proposed interventions to improve the gateway, increase active travel, ensure inclusive access, enable sustainable growth, and develop a future ready gateway, these key issues will remain. If the proposed scheme does not receive the required funding, the resulting benefits will be significantly undermined, and the objectives outlined in Section 1.2 will not be met.

2.1.6 What engagement/consultation has taken place with the main stakeholders and beneficiaries affected by the scheme?

Consultation is a key element of the Harrogate Station Gateway Improvements TCF scheme.

Engagement and consultation on the scheme have been ongoing since 2014, with the feedback received from the public and stakeholders used to shape the design development process and ultimately inform the final scheme design.

Between 2014-2021, the engagement and consultation were predominantly focused on understanding the key issues within Harrogate and potential measures to help address them. This involved an early stakeholder engagement exercise in 2014 on the existing challenges in Harrogate, followed by a further exercise in 2015 on the emerging Town Centre Vision that was under development by the Council. In 2019, a public engagement was then undertaken as part of the Harrogate Congestion Study, aimed at understanding the extent to which congestion is a problem in Harrogate, how the congestion affects local people, and what measures could be implemented to reduce congestion.

Following the early issue-identification engagement exercises, further engagement and consultation activities took place between 2021-2023. These activities were focused on seeking feedback on the emerging proposals for the Harrogate Station Gateway TCF scheme, which had been developed based on feedback received during the earlier stages of engagement. This engagement was undertaken in three stages, as follows:

- **Stage 1:** February- March 2021 (feasibility design phase)
- **Stage 2:** October- November 2021 (preliminary design phase)
- **Stage 3:** July- August 2022 (detailed design phase)

The remainder of this section provides a summary of the consultation and engagement that has taken place since 2021, on the emerging designs for the Harrogate Station Gateway TCF scheme.

Stage 1: Harrogate Station Gateway Public Consultation (February- March 2021)

Consultation was launched on 24th February 2021 for the Harrogate Station Gateway TCF proposals. The aim of the consultation was to seek feedback on the feasibility designs presented in the OBC.

The consultation took the form of an online survey, inviting feedback on the proposals through a series of consultation questions to the public. In light of the COVID-19 pandemic and social distancing guidelines, no face-to-face events were held. Feedback from the survey was collated and analysed, with the results presented in a Consultation Report, published in April 2021.

Alongside the public consultation exercise, engagement with key external stakeholders commenced in November 2020, with ongoing engagement throughout the design and development of the scheme. This involved workshops with a number of key stakeholders, including but not limited to: Transdev, Harrogate Cycle Forum, Zero Carbon Harrogate, Harrogate Climate Change Coalition, Historic England, Harrogate Civic Society, Northern Rail and Network Rail, Harrogate Business Improvement District and Harrogate Chamber of Commerce.

Feedback on the scheme was sought by zone, to help understand levels of support for the different elements of the scheme:

- **Zone 1:** Station Parade, One Arch Underpass, East Parade & Bower Road
- **Zone 2:** Station Square and James Street

Full details of the consultation and results are included in the Consultation Summary Report.

Responding to the Feedback

The outcomes of the first phase of public consultation showed that the option with the largest support was to single lane Station Parade and some form of pedestrianisation on James St. In addition, support was given for an improved public realm on Station Square and One-Arch.

Following the consultation, a decision was made to progress with the most popular option for Station Parade (removal of a traffic lane to provide segregated cycle lanes).

Work was undertaken to refine the designs with input from the local community. The design of some junctions was amended, and the layout of the Station Bridge/ East Parade roundabout was

refined to provide better crossing points. Some changes were also made to the tree planting proposals to avoid areas with underground services. The changes aimed to provide a balance between improved safety for walking and cycling and maintaining the operation of the local road network. This was to help address concerns raised by members of the public that the scheme would worsen congestion.

Stage 2: Harrogate Station Gateway Public Consultation (October- November 2021)

A further round of consultation was held over a four-week period between 18th October and 12th November 2021. The aim of the exercise was to seek feedback on the preliminary designs, which were developed based on feedback received during the earlier consultation exercise that took place in early 2021.

Given that the consultation took place in the aftermath of the COVID-19 pandemic, it was a largely virtual exercise using online methods, however, four public drop-in sessions were arranged in the local Victoria Shopping Centre. More traditional methods of communications, such as post and telephone, were also offered to ensure the consultation was safe but also accessible and inclusive.

During the four-week consultation period, a total of 1,320 online surveys were completed.

Responding to the Feedback

The second consultation presented more detailed designs reflecting feedback from the first consultation, including one lane of traffic throughout Station Parade. Although strongest support had been for full-time pedestrianisation of James Street, this was deemed no longer viable due to network capacity, access issues and funding restrictions. Proposals were therefore adapted to include full-time pedestrianisation on the eastern end of James Street only in this consultation.

Following the second round of consultation, the scheme proposals were adapted, with refined designs for:

- One Arch and Station Square;
- Junction amendments to make it easier to cross;
- Station Bridge/ East Parade roundabout by the Odeon cinema;
- Lighting proposals; and
- Benches and bins.

Furthermore, during the consultation, some concerns were raised over the potential impact of the scheme. To address, these concerns, NYC provided the following evidence:

- **Concern over increased congestion resulting from the closure of a lane on Station Parade-** a congestion study was undertaken and made available for the public to view. The study showed that whilst there was likely to be some negative impacts during peak periods, they are not expected to cause excessive congestion and are considered within acceptable levels by highways officers.
- **Concerns over the negative impact on local businesses-** the business case was made available for the public to view. This showed that improvements to public spaces, walking and cycling tend to have a neutral economic impact on local businesses. In addition, a survey undertaken

on James Street suggested that nearly all people would continue to shop here if parking were removed.

- **Concerns over air pollution-** an air quality assessment was made available, which considered that the proposals would have a negligible impact on the area. The design aimed to improve air quality by reducing traffic from James Street by enabling a shift towards less car use and more use of public transport, walking, and cycling.

Stage 3: Harrogate Station Gateway Public Consultation (July- August 2022)

The third stage public consultation was carried out over a five-week period between 20th July and 23rd August 2022. The purpose of the consultation was to seek feedback on the detailed designs before submission of the FBC, with feedback used to help shape the future development of the designs.

The proposals provided more detail on the following areas, building on feedback received from earlier consultations:

- Enhanced walking, cycling and bus access along Station Parade;
- Pedestrianisation proposals to James Street; and
- Transformation of Station Square and One Arch.

During the third stage consultation, a total of 2,044 surveys were completed. A summary of feedback received is provided below.

- The majority of respondents (51%) felt positive or very positive about the designs for public space, landscaping and lighting. 26% felt negative or very negative;
- Concerns were raised that the proposals would worsen congestion and cause problems for parking and loading/ taxis;
- A number of other suggestions were made for further improvements, including landscaping, design features and active travel;
- Some concerns were raised over access and safety issues regarding spaces to be used for activities and/or events, particularly for people with disabilities.

Key design changes following the consultation and engagement

- One-way proposal for Station Parade was progressed. This was the most favoured option at consultation and also offered a more beneficial impact on waiting times / highway impact in this area;
- Wider footways and cycle lanes in some locations;
- The proposals for Station Bridge roundabout were descoped from the scheme. This is because the designs were developed before the latest LTN 1/20 guidance was published, meaning the proposed cycling and walking improvements would not have met minimum width requirements.
- The proposed bus lane on Cheltenham Parade was descoped and retained as an ahead-only lane. This is because of the access requirements to the Network Rail depot car park.
- Speed tables were added to the proposal in various locations as a further traffic calming measure.

- The length of the taxi rank on Station Parade was extended. This was due to concerns raised during engagement with taxi operators. An additional taxi bay on the eastern side of Station Parade was introduced to accommodate disabled passengers.

FBC Redesign

As identified previously, following development of the Harrogate Station Gateway Project from a feasibility study to near completion of a Detailed Design to meet the objectives of the TCF, a legal challenge to the scheme was received. As a result, NYC developed an alternative revised scheme (as described in this FBC) that is considered unlikely to result in further challenge. The revised scheme is intended to deliver the maximum benefits to the people of Harrogate.

To date, NYC have consulted with local members and a limited number of stakeholders in the Harrogate District to assess the potential acceptability of a reduced scheme scope. The scheme is supported by local councillors. It should be noted that the final scheme will not be going out to consultation again, other than the statutory process required for Traffic Regulation Orders (TROs), although the council intends to conduct further public engagement.

Engagement and Consultation on TROs

New TROs are required to allow for the Harrogate Station Gateway improvements to be implemented. It is common place for the TRO process to commence ahead of major projects receiving full funding to ensure that necessary measures can be enabled so that the project will function appropriately. Five TRO proposals were subject to consultation and public advertisement in accordance with the Local Authorities' Traffic Orders (Procedure) (England and Wales) Regulations 1996. The TROs were advertised for public comment on 25 July 2024. The last date for receipt of objections was 26 August 2024.

Seven responses were received specific to the proposed TROs[15]. After considering the comments received, officers recommended the following:

- Not to introduce a loading/unloading bay on the east side of Station Parade North
- Not to implement the parking and waiting amendments south of Station Bridge

Following consultation and considering the advantages and disadvantages of the TROs, it was deemed necessary to make the TROs based on the reasoning outlined below in Table 2-14, as well as to support local travel improvements and wider strategic aims in accordance with the aims of the Transforming Cities Fund initiative.

[15] Full details of the responses can be found here.

Table 2-14: Justification for TROs Sought	
TRO	**Justification**
Draft bus lane and cycle lane (Station Parade, Harrogate) order 2024	Introduces a southbound bus lane on the east side of (Lower) Station Parade. This will separate buses and cyclists from general traffic, reducing the likelihood of conflicts with other traffic. It will also improve journey times for buses travelling to the bus station, better facilitating their passage. Reductions in buses waiting are considered to improve the amenities of the area.
Draft one-way traffic (Station Parade, Harrogate) order 2024	Creates a one-way southbound restriction on (Lower) Station Parade. This will provide the space in which to separate buses and cyclists from general traffic in conjunction with the above order, reducing the likelihood of conflicts with other traffic. It will also improve journey times for buses travelling to the bus station, better facilitating their passage. Reductions in buses waiting are considered to improve the amenities of the area.
Draft prescribed routes (Station Bridge, Harrogate) order 2024	Requiring vehicles to turn left onto Station Parade, preventing vehicles from travelling in Albert Street. This will avoid danger to persons or other traffic using the road and facilitate the passage on the road.
Draft prohibited turning movements (various roads, Harrogate) order 2024	Prohibiting turning against the one-way restrictions and allow for enforcement, thus avoiding danger to persons or other traffic and facilitating the passage on the road
Draft Prohibition of Waiting and Loading and Provision of Parking Order 2024	Amending on-street parking and revoking previous TROs. This will prevent vehicles parking in areas and at times that could impact the flow of traffic and otherwise potentially create danger to persons or other traffic using the road and impede passage on the road. Prohibiting loading/unloading between 7:30am to 9:30 am and 4:00pm to 6:00pm and revoking previous TROs. This will ensure loading/parking in areas and at times that will not impact the flow of traffic or create danger to persons or other traffic using the road and impede passage on the road.

Consultation and Engagement Inclusivity

Throughout all engagement and consultation activities, NYC and WYCA were committed to promoting equality and diversity, by ensuring equal opportunities for everyone to get involved. During each stage of the process, efforts were made to engage with 'seldom heard groups,' which refers to under-represented people and/ or communities, who rarely have the same opportunities to express themselves as other stakeholders. Due to multiple barriers affecting access to and the use of public and social services, these groups are typically harder-to-reach, with additional efforts required to engage them.

As part of the consultation planning process, a Seldom Heard Groups Action Plan was developed. This utilised knowledge from within the Council and building on previous engagement, to identify the seldom-heard groups within Harrogate. Communications were then sent to key contacts, such as representatives from community, accessibility and disability groups, including *Disability Action Yorkshire, Harrogate Homeless Project and Pride in Diversity Harrogate*. The communication signposted the consultation and survey and offered the opportunity to engage further, such as through a meeting or focus group. It was also requested that those contacts circulated the information supplied to their wider networks, to encourage participation.

Additional efforts were also undertaken to reach people who were unable to engage online, who may not feel comfortable using online services, or may experience access issues. NYC supplied a freepost address for letters or return of paper surveys, a dedicated telephone number for enquiries, printed leaflets, articles in local newspapers, and paper versions of the proposals and surveys were available on request. Contact details were supplied for those requiring information or to request alternative ways of accessing the information.

This approach helped ensure the engagement and consultation activities were as inclusive and accessible as possible, with feedback received taken into consideration at the various stages of design. Ultimately, the approach ensured NYC were able to document a robust approach to community engagement, expending a relative, proportionate and reasonable amount of effort in trying to engage all groups.

NYC considered all comments received during the above-outlined engagement to develop a high-quality design, including wider pavements, improved crossings, consideration of materials and colour contrasts. The impact of the proposed changes to taxi-related facilities, parking and traffic flows on people's travel habits has also been considered.

It is considered that the designs comply with all relevant industry best practice, government-issued guidance, and legal requirements such as the Equality Act 2010.

3. Commercial Case

3.1 The Case for Change

3.1.1 What evidence is there to support the market demand justification for this project?

Introduction

As demonstrated in the strategic case there are a number of key existing challenges and future drivers for change that need to be addressed. The scheme has been subject to a significant level of appraisal and assessment and there has been a substantial amount of work undertaken to identify the key challenges, consider potential scheme options and assess the impacts. A summary of the key studies and supporting evidence for the justification of the scheme is provided below.

Demand for the Scheme

The 2014-2035 Harrogate District Local Plan, states that the development of this site should meet the following requirements (among others):

- Master planning of this key development site will take place as part of the wider Harrogate Gateway Master Plan, which is being prepared in partnership with landowners and key stakeholders. Any proposals which come forward separately for the development of this site should not prejudice the comprehensive re-development of the area covered by the brief and the achievement of the wider master plan.
- Provide improved pedestrian and cycle links within the site and from the site to connect with the town centre. In particular, pedestrian connections to and around the bus station, links to Oxford Street and Cambridge Street and a new direct pedestrian link from the Victoria car park to the town centre.

While there has been a restructure of the governance arrangements for North Yorkshire in 2023, some former district statutory policies (including the Harrogate District Local Plan) have been retained as valid documents. These will be superseded in due course by a new NYC document.

The Harrogate Town Centre Strategy and Masterplan (HTCSM) was prepared in 2016 and sets out the Council's plans for the development of Harrogate town centre in the period up to 2025. It seeks to deliver a range of improvements, attract inward investment and inform development management decisions within the town centre area.

A Transport Infrastructure Review was undertaken as part of the baseline evidence review of the HTCSM. Several needs for intervention were established as part of this review:

- While the railway and bus stations are well located to serve the town centre, pedestrian links to and from them are unattractive and poorly signed;
- The considerable amount of town centre on-street parking can act as a barrier to walking and cycling; and
- Congestion issues are evident in several locations, with several town centre junctions operating above or approaching capacity.

The outcome of the baseline review identified several opportunities that would enhance the performance of the town centre and deliver additional economic benefits; these included:

- Redevelopment of the transport hub on Station Parade, to greatly enhance the gateway to the town centre and provide improved transport facilities; and
- Significant improvements to the public realm to reduce the dominance of traffic and parking, and to improve the town centre environment.

The Preferred Option from the HTCSM is the 'Enhanced Growth' option; this is supported by the evidence gathered at the baseline stage, including:

- Opportunities to further enhance the town centre's environment through targeted interventions, particularly relating to public realm and transport. This would recognise the high regard visitors have for the town centre's special environmental qualities, but also the need to upgrade the existing transport infrastructure; and
- Recognition that the identified areas for improvement are often interlinked and that a higher level of intervention, over and above existing strategies, would allow more effective co-ordination that would leverage greater benefits for the town centre and the local economy.

In 2017 stakeholders and landowners developed a Masterplan for the site that enshrined a vision:

- To create a regionally significant, exemplar Gateway for Harrogate with outstanding public realm, high quality mixed-use development to meet the present and future needs of the Town Centre, and high quality transport links at the forefront of sustainable travel planning coordinated between rail, bus, taxis, cars, cyclists and pedestrians. The Masterplan should be ambitious and imaginative, but also will also focus on being fundable, both publicly and privately, to ensure it can be delivered and generate viable development opportunities, as well as catalyse further phases, without further delay to regeneration of a site which has blighted Harrogate for far too long.

Sustainable transport and public realm improvements are key to unlocking built development, that will bring much needed new homes and jobs to the town. The TCF scheme is, therefore, critical to facilitate future development of the area.

Two significant public consultation events took place in 2019 in the Harrogate area related to transport. The Harrogate Congestion Study (HCS) consultation was a major public engagement exercise by NYCC to gain public input on proposed measures to reduce traffic congestion in Harrogate. The Otley Road Cycle Scheme consultation was undertaken as part of the development of improved cycle infrastructure provision along the Otley Road corridor in west Harrogate. Further details of the need for intervention from this engagement is provided below.

Harrogate Congestion Study Engagement

The HCS engagement was conducted between April and July 2019 and featured promotional activity, online information, questionnaires and a series of exhibition events. Over 15,000 responses were received to the engagement questionnaire in additional to various letters, emails and verbal responses.

All open questions, where respondents could provide free-text responses were reviewed and sorted for their relevance to walking. The biggest proportion of comments regarding the walking

infrastructure was in relation to pedestrian access on specific links and junctions on the network. These junctions include the Cheltenham Crescent / Station Parade junction and the Station Parade Station Bridge junction.

The headline outcome of this engagement was that there was a low level of public support for an inner relief road to address traffic issues within Harrogate (only 18% of respondents either agreed or strongly agreed). There was majority support for new walking and cycling infrastructure to address traffic congestion (with 77% of respondents who either agreed or strongly agreed). In addition, 1,277 comments were received which related to requests for providing better walking and cycling facilities in general.

Otley Road Cycle Scheme

NYC held a public consultation event for the Otley Road Cycle Scheme in January 2019 where people were invited to provide their views on the proposals. While the public comments focus primarily on cycling due to the nature of the scheme, there were also comments concerning walking.

Respondents have additionally identified the need for more pedestrianisation within the town centre with lighting provision and a reduction of traffic volume and speed.

A consultation was also held on amending the Stray By-laws to allow cycling on the verges of Otley Road, within Stray land. Over 50% of respondents agreed with this proposal. In addition, the consultation proposed to exchange grassed stray land from Otley Road to be used as part of the cycle way. There was also majority agreement with this proposal.

Harrogate Station Gateway Stakeholder Engagement

Following a review of the existing conditions, and engagement with stakeholders undertaken to support the OBC stage of the Harrogate Station Gateway scheme, the following issues were identified within the scheme area:

- Consultation with Transdev, one of Harrogate's bus operators, identified that the Cheltenham Parade and Station Parade corridor experiences congestion leading to variability in bus journey times. The most frequent services affected on these corridors are Service 1 (Harrogate – Knaresborough) and Service 36 (Leeds – Rippon).
- Harrogate rail station saw a 7% growth in passenger entries and exits over the four years between 2016/17 and 2019/20. After the impact of Covid numbers have reduced, but demand is now growing again. Consultation with Northern Rail and Network Rail has identified that future growth in passenger numbers using Harrogate station is expected.
- Engagement with the Harrogate Cycle Forum has highlighted the existing lack of cycling facilities on Station Parade and surrounding streets, resulting in low cyclist numbers and perceived safety issues for cyclists. This position is supported by travel to work by transport mode data. As shown in Table 3-1 Harrogate has a lower level of cycle use for commuting trips than both the regional average and the national average.

Table 3-1: Method of Travel to Work – Not in Employment Removed (% of Trips)				
Method of Travel	**Harrogate District (2021)**	**Harrogate District (2011)**	**Yorkshire & The Humber**	**England**
Work Mainly at or From Home	35%	8.5%	4.6%	5.4%
Rail	0%	2.6%	2.8%	9.4%
Bus, Minibus or Coach	1%	3.8%	8.5%	7.5%
Taxi	0%	0.3%	0.7%	0.5%
Motorcycle, Scooter or Moped	0%	0.5%	0.7%	0.8%
Driving a Car or Van	45%	61.9%	61.4%	57.0%
Passenger in a Car or Van	3%	5.0%	6.4%	5.0%
Bicycle	1%	2.2%	2.6%	3.0%
On Foot	11%	14.5%	11.8%	10.7%
Other Method	1%	0.7%	0.6%	0.6%

A further review of the 2011 Census data (shown in Table 3.2) indicates that there is a high proportion of short distance commuting journeys undertake by car or van. These are journeys which have the greatest potential to be shifted to active modes.

Table 3-2: Method of Travel to Work by Distance and Mode		
Method of Travel - Harrogate	**Less than 2km**	**2km to less than 5km**
All Modes	100.0%	100.0%
Train, underground, metro, light rail or tram	0.5%	1.0%
Bus, minibus or coach	2.9%	8.4%
Driving a car or van	40.6%	67.9%
Passenger in a car or van	5.4%	8.2%

Bicycle	4.7%	4.0%
On foot	44.6%	8.9%
All other methods of travel to work	1.2%	1.5%

It should be noted that 2021 Census data was not available for the Method of Travel to Work by Distance and Mode; therefore, only 2011 data has been presented.

3.1.2 What evidence is available to support the projected take-up by the market?

Building on the evidence presented in Section 3.1.1, it is clear that the continued growth and prosperity of Harrogate town centre is dependent upon providing sustainable travel options. The dominance of private cars and vans is no longer seen as a sustainable option and can be seen to 'choke' future growth. A series of case studies of similar UK-based sustainable travel and public realm schemes have been reviewed to provide evidence in support of the scheme's potential to effect a positive change within Station Gateway area. The case studies are summarised in Table 3.3 below.

Table 3-3: Sustainable Travel and Public Realm Improvements – Case Study Evidence

Schemes aimed at improving travel quality	Scheme Description	Recorded Scheme Impact
'The Gold Square' Sheffield 2008. (Source: Sheffield Public Realm).	The scheme aimed to improve the journey quality for pedestrians by creating a network connecting key areas of the city with each other.	Connecting the rail station with the city centre was one of the main successes of the scheme through improving parts of the city such as Sheaf Street which is a key corridor to the city. Other impacts included improvements to Hallam Gardens, and Howard Street which improved connections between the universities. The outcome was an increase of 174% in pedestrian movement; 3,174 to 8,700. Also, there was a decrease in vehicle flow between 2001 and 2008.
Lewes Road, Brighton. Transport improvement scheme (Source: Interim Post-Construction Monitoring Report 2016).	The 2-phase scheme aimed at converting areas of carriageways to improving the journey quality of bus services and cyclists. With the aim of increasing the number of sustainable commutes made throughout the city and reduce local air pollution.	General traffic on Lewes Road has reduced by 15%, this could be due to increases in passengers boarding buses which has increased from 6.2million to 6.8 million (9% increase since prior to the scheme). There was also an average increase of 15% in people cycling in the area after the scheme was completed which was an

		improvement in the levels between 2009-2011.
Maid Marian Way, Nottingham. Remodelling to improve the public Realm. (Source: Making the Case for Investment in the Walking Environment)	The aim of the scheme was to improve the public realm for pedestrians by remodelling the dual carriageway to make the area more pedestrian friendly and increase pavement widths.	Between 2003 and 2005 the pedestrian count increased by 56% on weekdays and 29% on Saturdays.
Old Street: Promenade of Light (Source: BSP 0506 Outcome Monitoring Report)	The scheme was aimed at making improvements to the public realm including lighting, surfacing, additional seating and new greenery.	The outcome was a significant increase in weekday pedestrian flows, with a 31% increase between November 2005 and 2006.
Cycling Demonstration Towns (Report to the Department for Transport, Sustrans 2017)	CDT ran from 2005 to 2011 to encourage cycling for everyday urban trips. In line with programme was also the Cycling City and Towns (CCT)	Over the duration of the programme, cycling trips increased in the six medium-sized towns it ran in. There was a 29% increase in cycling for the six CDT's and an overall increase of 24% for the 12 CCT's
New Road development, Brighton and Hove (Source: Designing Streets for Different Users).	The main initiative was to increase shared space in the city centre. This included widening paths and improving the public realm by providing more outdoor private and public seating.	Between 2007 and 2010 there was a huge shift in pedestrians and cyclists; with an increase in 162% of people walking and 22% of people cycling. There was also a 93% reduction in traffic volumes.
Darlington, Peterborough and Worchester making 'smarter choices' to help improve the walking environment. (Source: Making the case for Investment in the Walking Environment).	The three towns where part of The Sustainable Travel Towns initiative to invest in the promotion of cycling and walking and increasing the attractiveness of public transport between 2005 and 2009.	Over the duration of the programme, there was a shift in people opting to walk, cycle, and use public transport. Car driver trips decreased by 9% which assisted in helping reduce aggregated traffic by 2-3%. The success was partly due to 10-22% increase in residents using the bus whilst there was also a 26-30% increase in residents cycling.
Wilcox Road, Lambeth, London. Improving pedestrian footways. (Source: Key Walking Routes Evaluation:	The scheme's target was to improve pedestrians journey experience by improving the public realm. This included	Between 2009 and 2011 the number of pedestrians using to footways on Wilcox road increased by 57%.

Outcome Monitoring of Selected LIP- Funded schemes 2011/12- SKM Colin Buchanan).	ensuring the footways were paved with higher quality materials and removing obstructive street furniture.	
Bristol cycling scheme, as part of the Active Cities Report.	Bristol City Council have continuously focussed on improving the cycle infrastructure in the city to reduce the number of personal vehicles used as well as reduce air pollution and improve resident's health. This has been seen with restoring a highway running through the town square as walking and cycle paths as well as reducing the speed limit to 20mph on all residential streets and in a significant percentage of business district streets to promote cycling.	Through many campaigns and schemes Bristol has seen a significant shift in residents opting to cycle. Between 2001 and 2011 there was a 94% increase in residents cycling around the city.

Based on the above studies, it is considered that there is a strong precedent for achieving a significant and sustained increase in walking and cycling levels in urban areas through the implementation of new active travel infrastructure.

Sustainable transport and public realm improvements are key to unlocking built development, that will bring much needed new homes and jobs to the town. The TCF scheme is, therefore, critical to facilitate future development of the area, including the built-form elements of the station gateway masterplan.

The median workplace earnings across the district are lower than regional and national averages and there is a significant mismatch to the cost of housing – with median house and private market rental prices the highest in the North of England.

The proposed 280 town centre units will play a large role in addressing housing need in a town centre with a limited number of development sites. Moreover, new, high quality, town centre office space is critical to support the creation and retention of higher value jobs in Harrogate.

Since permitted development rights were introduced in May 2013, NYC has been notified that over 26,000sqm of employment floorspace is intended for conversion to housing. There is a severe lack of high-quality town centre office space in Harrogate that is resulting in businesses leaving the district/county and preventing potential investment.

3.2 Procurement Strategy

3.2.1 What is the procurement strategy/approach?

Procurement Strategy

The procurement strategy for the scheme covers the use of existing arrangements and the procurement of additional resources for both the design and preparation stages, including the detailed design and the construction of the scheme.

The procurement process will be run in accordance with the then North Yorkshire County Council (NYCC) procurement principles set out within the Procurement and Contract Management Strategy 2018-2022. The ambition of NYC, in terms of procurement was, to:

- Achieve savings and value for money for the communities of North Yorkshire
- Support the delivery of quality outcomes for service users
- Support the wider ambitions of the Council and its partners
- Develop a very deep understanding of user needs
- Influence and operate commercially, understanding supply market capabilities
- Practice robust contract management
- Attract suppliers of all sizes and from all sectors to want to work with the Council
- Attract procurement professionals to want to work for the Council
- Be recognised nationally as a procurement centre of excellence and expertise

The procurement options described within this document support the vision of the NYC Procurement Strategy which is:

"Working collaboratively to deliver efficiencies, value for money and sustainable quality through a proactive commercial approach to procurement and commissioning for the communities of North Yorkshire."

Adhering to these principles will ensure the scheme is commercially viable and the outcomes are achieved.

Sourcing Options

The Procurement Strategy at each of the remaining stages of the project will have a significant influence on the programme and risk allocation of the project and will consider the risks in the risk register.

The remaining milestones of the project include:

- Obtaining required approvals
- Production of procurement documentation
- Contract award
- Construction

Construction is currently scheduled to take place between Autumn 2025 and Spring 2027.

Procurement of Construction Contractor

Construction contractor procurement has been undertaken in accordance with the relevant procurement policies, strategies and legislation including:

- The National Procurement Strategy
- The targets of the National Procurement Strategy for Local Government by the Local Government Association (LGA)
- The Public Service (Social Value) Act 2012
- The Equality Act 2010
- Local Government Transparency Code 2015
- The Procuring for Growth Balanced Scorecard
- The Outsourcing Playbook
- The Construction Playbook

The project team undertook early tasks to help identify potential procurement options and inform the selection of the most suitable construction contractor procurement route. The process was undertaken in conjunction with the other NYC TCF schemes (Selby Station Gateway and Skipton Station Gateway) to ensure the most efficient and effective route was selected. These tasks included the completion of a procurement questionnaire and a workshop held in November 2020 with representatives of the project team, WYCA Programme Team and NYC's procurement officer.

The procurement questionnaire included questions on the following:

- Project themes (e.g. highways design, urban design and landscape)
- Project Management structures
- Design team information
- Details of any early contractor and supplier involvement
- Project schedule
- Project budget
- Project risks
- Project approval process
- Project partners, stakeholders and dependencies
- Identified procurement options
- Project unknowns

A number of procurement options were identified and advantages and disadvantages for each considered. These are summarised below.

Private-public partnership

It is envisaged that there would be no benefit to this project by using Design, Build, Finance and Operate (DBFO) or Public Finance Initiative (PFI) types of contract. DBFO and PFI are often used to fund large schemes requiring large capital expenditure, and where government want to spread the cost of capital schemes and move risk of construction to the private sector. If successful, TCF funding will be used to deliver this scheme, therefore this type of contract has not been considered further.

Traditional contract (build only)

This procurement approach involves the preparation of tender documentation, including drawings, work schedules and bills of quantities. Contractors are then invited to submit tenders for the construction of the project, most usually on a single-stage, competitive basis. This is a form of contract which NYC has successfully used many times previously, e.g. Kex Gill Bypass.

The **advantages** of this approach include the following:

- Principles developed over many years and widely understood
- Client develops the specification with full control of quality
- Risk managed by the client
- Client retains control and flexibility to change specification
- Award of contract on lowest price basis demonstrates Value for Money

The **disadvantages** of this include the following:

- Client retains risk of delivery on time and to budget
- No incentive for contractor to innovate
- No link between design and construction
- Nature of all risks are not fully realised at the point of award resulting in the potential for an increase in outturn cost and delays with completion

Partnering contract with Early Contractor Involvement (ECI)

A Partnering contract is a collaborative management approach that encourages openness and trust between parties to a contract. Additional ECI is included prior to contract tendering to inform the design and programming process.

The **advantages** of this approach include the following:

- Collaboration between parties
- Able to design out construction risks early in the design development
- Buildability considered earlier in the process
- Risks are better defined and managed than with a traditional contract
- Opportunities to link design and construction.

The **disadvantages** of this approach include the following:

- Many of the disadvantages of traditional procurement can remain
- Difficult to get the right people involved at an early stage in the development of the project

This approach was successfully delivered on the Scarborough Integrated Transport Scheme (SITS).

Design and build

A design and build contract will involve the contractor completing the detailed design and constructing the scheme.

The **advantages** of this approach include the following:

- Integration of design and construction leads to efficiencies in cost and time
- Single point of responsibility for the client
- Risks clearly identified and allocated during the procurement phase
- Stimulates innovation, reducing cost
- Allows the contractor to review the buildability of the design before construction commences

The **disadvantages** of this approach include the following:

- Reduced competition with fewer companies interested
- Contractor takes on greater risk and prices accordingly
- Lack of flexibility to change the specification
- Quality may be overridden by cost efficiency

This approach was successfully delivered on the Bedale, Aiskew and Leeming Bar Bypass (BALB) scheme.

Procurement Workshop

The procurement workshop was undertaken to allow for collaborative discussion on the procurement options and support the following objectives:

- Accelerate progress towards identifying a preferred procurement option
- Minimise any potential for lost time in the Programme
- Promote a selection process that provides underlying rationale to strategy
- Focus upon scoring options against decision characteristics
- Consider the conflicts/dependencies/concurrent programmes that influence decisions
- Consider Market Engagement Strategy

Subsequent to the procurement workshop, NYC issued a Request for Information (RfI) to potential contractors covering all three NYC TCF schemes (Harrogate, Selby and Skipton). The main aim of the RfI was to gather market information and ensure that there was a market for the proposed procurement approach and financing arrangements.

The RfI presented outline project information and asked a series of procurement and delivery questions related to the schemes, covering the following aspects:

- Packaging of schemes and component elements
- Constraints (time, resourcing and materials)
- Stakeholder management
- Opportunities and risks associated with different procurement options
- Additional relevant information and feedback

The keys points identified by this RfI process are summarised below:

- Low market appetite for design and build option due to timescales and risk
- High market appetite for Traditional contract with Early Contractor Involvement
- Equal support for combining all North Yorkshire TCF schemes into one package vs utilising geographical lots

Selected procurement strategy

The preferred procurement route for the Harrogate Station Gateway Improvement scheme is NEC 4 Option C 'Target Cost'. The NEC4 Option C is the target cost main works contract with an activity schedule. It can include any level of design and is ideal for more complex projects where NYC and the contractor can share project financial risk in a fully collaborative way.

The selected procurement strategy secured a contractor on an ECI basis, which allowed for discussions on supply chain planning and sourcing to begin early on - with relevant sourcing in place prior to start on site.

The recommended option for the procurement of a delivery contractor was a call off from the Crown Commercial Services - December 2020 – Framework RM6088: Construction Works and Associated Services framework. With an expiry of 30/10/2026.

The works were separated into three geographical lots (Skipton, Harrogate, and Selby) to ensure that suppliers had the opportunity to bid for these works, but also introduce the opportunity for economies of scale, should a supplier wish to bid for two or more lots.

With all the above call offs the recommendation was to secure a supplier using an NEC4 Option C (Target Cost) contract with ECI. The ECI allowed for the contractor to input into final detailed design and early planning for wider supply chain and works phasing considerations. The contract type is designed to encourage collaboration between the contractor, designer and client whilst allowing the contractor to be innovative in order to achieve value for money.

The in-principle appointment of NY Highways as contractor for the works was confirmed in February 2025. A target cost was submitted to NYC by NY Highways by way of a fully itemised Bill of Quantities (BoQs) and accompanying programme of works. Contract entry authority and approval to proceed is now scheduled to be considered by the NYC's Executive in October 2025.

Procurement Implementation Timetable

The procurement implementation timetable is summarised below:

Table 3-4: Procurement Implementation Timetable

WYCA Submission	December 2024- January 2025 – Complete
Design	December 2024- January 2025 – Complete
Rail Approvals	January 2025- April 2025 – Complete
Statutory Approvals	January 2025- April 2025 – Complete

Submission of Contractor Price and Programme	January 2025- May 2025 – Complete
Contract Award	October 2025
Construction	Autumn 2025- Spring 2027
Contract Management and Supervision	October 2025- Spring 2027

Contract Award

In the event that a target cost cannot be agreed and a delivery contractor cannot be appointed, a direct award can be granted through an existing framework with NYH.

Creating Social Value from Procurement

Social Value is a key priority for NYC and the procurement of goods and services by the Council should play an important role in maximising social value. NYC's procurement policy places a real emphasis on securing suppliers who can offer more than the core technical requirements of the contract and to make public funds go further by connecting procurement to wider social benefits, such as through employment, training opportunities and voluntary activities within local communities.

The following key social value criteria formed part of the ITT requirements:

- Mandatory weighting for social value contribution for all tenders over £75,000
- Requirement for the employment of apprentices by contractors as a proportion of total number of employees included within the tender submission
- Supporting local employment by setting a minimum requirement for the proportion of locally contracted staff
- Supporting young people through engagement with schools, including work experience
- Staff volunteering activities
- Increase SME and local spend above the current NYC average
- Implement the policy for "Clean growth and sustainability" within procurement contracts, this will ensure that tenders are evaluated against any environmental impacts
- Where appropriate ensure that green procurement considerations are included in specifications and tender documents to ensure reduced waste, reduced carbon emissions and minimise impact on the natural environment

The National TOM's Framework (2019)[16] was drawn upon to assess and compare the social value benefits of each submission. The Framework provides a robust, defendable and transparent means of assessing and awarding projects based on this value.

The Framework has been designed around five principal issues, 18 Outcomes and 35 measures. The overarching themes are as follows:

- Promoting skills and employment
- Supporting the growth of responsible regional businesses
- Protecting and improving our environment
- Promoting social innovation

For the scheme, NYC will require all contractors and internal service providers to commit to providing community and local economic benefits through the Social Value Portal. This includes:

- Local jobs created
- Jobs created for people with a disability
- Volunteer hours invested in training and community projects
- School and college engagement and work placements offered

Bidders are required to formally commit to targets which are then monitored as the contract progresses.

Overarchingly, NYC will seek to ensure a sustainable procurement route is adopted, which maximises social and economic benefit whilst minimising damage to the environment. This may include the following:

- Use of local suppliers and materials where possible
- Use of renewable materials
- Integrating social considerations into contracts

Potential Supply Chain Impacts

There is the potential to use supply chains to positively impact the scheme, for example through the use of local suppliers thereby contributing to the local economy. A summary of the potential supply chain impacts is given below, this covers both positive and negative impacts.

To mitigate risk the contractor will:

- Undertake financial checks on any proposed subcontractor for the major packages of works.
- Ensure that the supply chain has sufficient resource, skill, and ability to deliver the works.

[16] National TOMs Framework 2019 for Social Value Measurement

- Where it is deemed required, a bond or parent company guarantee will be procured as part of the subcontract.
- Vesting certificates will be required from the supply chain where appropriate, to secure the materials for the scheme.
- An allowance will be made for inflation within the target cost submission based on the BCIS index.

Procurement Delays

For the last few years, the construction industry has faced procurement and supply chain impacts as a result of worldwide market disruptions (Covid and the Ukraine war for example). Whilst this appears to be reducing there is still uncertainty within the industry, and recent national government announcements (such as the cancellation of HS2 north of Birmingham) may cause further impacts.

Reliance on Supply Chains

Overdependence on a single supplier or trading partner can pose risks to the supply chain, such as vulnerability to disruptions or limited options for sustainable or inclusive sourcing. Diversifying the supply chain by engaging multiple trading partners can enhance resilience, foster competition, and provide more opportunities for inclusive and sustainable practices. The contractor will therefore attempt to utilise multiple suppliers or partners where possible, to minimise risks to the supply chain and avoid programme delays as far as possible.

Rising Inflation

The steep inflationary rises since late 2021 have had a significant impact in the affordability of the project. Whilst construction industry inflation is considered to have possibly peaked there is still the potential for further impacts. This poses a risk to the delivery of the scheme.

3.2.2 Risk Allocation and Transfer

An important aspect of the management process is identifying risks associated with scheme delivery and funding early in the process to allow mitigation to be identified.

The Client's (NYC) risks associated with the scheme have been considered and included within the project risk register. A further summary of the key project risks is provided at Section 6.3.3. Contractor risks will be identified in the contractor's risk register and costs included in their pricing.

Where appropriate, the aim is to eliminate the risk, or prepare relevant mitigation measures to manage and reduce the impact of the risk. At this stage, the risks for the project sit with the Project Manager and/or Project Board but an owner has been allocated to each risk.

Risk reduction, value engineering and detailed design activities have been undertaken to support the delivery of the scheme and help to manage the overall costs of the scheme.

As part of the Commercial Case, the general principle that will be adopted is that the risks should be managed by the party best able to manage them. Throughout delivery, the majority of the construction and financial risk will be transferred to the contractor.

The following risk allocation table ('risk transfer matrix') illustrates the indicative allocation of risks resulting from the contractual and procurement arrangements. This ensures that all risks are assigned to the party best placed to manage them, achieving value for money. At this FBC stage, for each risk category it has been identified where each risk type rests with the public sector (the Council / Government Treasury) or the private sector (the consultants and contractors), or whether these risks are shared between the two.

Table 3-5: Risk Allocation Table

Risk Category	Public	Private	Shared
1. Design Risk	X		
2. Construction Risk			X
3. Transition and Implementation Risk			X
4. Availability and Performance Risk			X
5. Operating Risk		X	
6. Variability of Revenue Risk			X
7. Termination Risks			X
8. Financing Risks	X		
9. Legislative Risks	X		

Delivery and programme risk will be shared and incentivised through a pain/gain mechanism provided for as part of the construction contract. Incentivised performance will be based against this through to final delivery.

The proposed incentivised performance definitions are set out below to drive efficiency throughout delivery.

Table 3-6: Incentivised Performance Definitions

Share Range	Contractor's Share Percentage Savings/Additional Costs

Less than 90%	0%
From 90% to 110%	50%
From 110% to 120%	75%
Greater than 120%	100%

3.2.3 Statutory and Other Regulatory Consents

NYC has reviewed the potential impacts of the scheme and the consents needed to construct and implement the proposals. These are summarised below:

Town and Country Planning Act

The Local Planning Authority has identified that based on the current scheme design proposals planning permission may be required for the demolition of the wall on the east side of the One Arch underpass, due to construction taking place immediately adjacent to the highway boundary and within a conservation area.

The removal of trees within the conservation area will require a tree removal consent.

All other parts of the scheme would be permitted development under Schedule 2, Part 9, Class A (Development by highways authorities) of the General Permitted Development Order 2015 (GDPO).

Environment Impact Assessment Regulations (2018)

Based on the characteristics of the works proposed through CIP, it was not considered that the works would constitute Schedule 1 development, as described within the EIA Regulations.

Following an appraisal against Schedule 2 of the EIA Regulations, the works are considered to fall under Schedule 2, Part 10f (construction of roads) and/or 13b (a change to or extension of development classified under Schedule 2, Part 10f).

Combined works within any of the corridors or gateways are anticipated to exceed the 1ha threshold outlined within Schedule 2 of the EIA Regulations. Nevertheless, as outlined within the EIA Regulations and Department for Communities and Local Government Planning Practice Guidance, the exceedance of the thresholds detailed within Schedule 2, Column 2 does not automatically determine that the Proposed Scheme is EIA Development, but rather that "the proposal needs to be screened by the local planning authority to determine whether significant effects on the environment are likely and hence whether an Environmental Impact Assessment is required.

Having undertaken an Environmental Screening the LPA's Screening Opinion dated 18 June 2021 (21/02020/SCREEN) confirmed that an EIA would not be required.

Planning permission for the wall works were granted on 22 March 2023 (22/04360/FUL); the tempietto's removal on Station Square was granted on 30 March 2023 (22/04361/FUL).

Traffic Regulation Orders

NYC, as scheme promoter and Local Highway Authority, will be seeking a number of new / amended TROs to facilitate the scheme proposals, including but not limited to, parking, loading & waiting restrictions; general traffic restrictions; and new cycle tracks. These Orders will be made under the provisions of the Road Traffic Regulation Act 1984 and all other enabling powers.

These TROs will follow a statutory procedure comprising:

1. Consultation – comprising statutory consultees, affected stakeholders and the general public;
2. Advertisement of the TRO then takes place for a minimum period of 21 days;
3. Objections - when considering the objections, the senior officer must decide whether to allow the scheme to proceed, modify the scheme or abandon it. Certain types of TRO may automatically trigger a local public inquiry if objections are received; and
4. Making the order - the TRO can then be formally sealed, and is advertised as a made order with a date of implementation.

The statutory process above will be undertaken during the detailed design / early construction stages once the proposed scheme is finalised. It is envisaged that TROs will be sought as permanent restrictions through the process outlined above, but where appropriate the scheme promoter may seek to use temporary and / or experimental orders to test the impacts of the proposals.

3.2.4 Construction Design and Management Regulations 2015 (CDM)

The 2015 CDM Regulations came into force on 6th April 2015, outlining the CDM requirements and responsibilities of the six identified duty holders; clients, designers, principal designer, principal contractor, contractors, and workers. On all construction projects all Designers and all Contractors have specific legal duties under the CDM Regulations.

The Client (NYC) is responsible for who carries out a construction project and is responsible for making the suitable arrangement for managing a project. They must ensure other duty holders are appointed and sufficient time and resources are allocated. In addition, they must ensure the relevant information is prepared and provided to other duty holders, ensure the Principal Designer and Principal Contractor carry out their duties, and that welfare facilities are provided.

The Principal Designer (WSP), appointed by NYC for this scheme, has the responsibility to plan, manage, monitor and co-ordinate health and safety in the pre-construction phase of a project. They must ensure they identify, eliminate and control foreseeable risks. In addition to, ensuring designers carry out their duties, preparing and providing relevant information to other duty holders, and provide relevant information to the principal contractor to help them plan, manage, monitor, and co-ordinate health and safety in the construction phase.

The Principal Contractor, appointed by NYC for this scheme, will plan, manage, monitor and co-ordinate the construction phase of the project. They must liaise frequently with the client and principal designer, prepare the construction phase plan, and organise co-operation between other contractors and co-ordinate their work. In addition, they must ensure suitable site induction is

provided, that reasonable steps are taken to prevent unauthorised access, workers are consulted and engaged in securing their health and safety, and that welfare facilities are provided.	
Do the CDM regulations apply to this scheme?	Yes
Is the lead organisation/promoter as identified in this business case the CDM Client as set out in the CDM 2015 regulations?	Yes
If the lead organisation is NOT the CDM client: **Provide details of the organisation which has formally accepted the CDM client role** **Explain why they have been selected as the most appropriate organisation for this role**	n/a

4. Economic Case

4.1 Long List Options Testing

4.1.1 What Long List of Options have been considered?

Full details of the option identification and sifting process since submission of the programme level SOC in 2019 are provided in the Option Assessment Report (OAR) and the OAR Addendum.

As part of the SOC, a long list of schemes for Harrogate were identified to address existing issues and constraints identified in the study area, supporting the programme-level TCF objectives. These scheme options were formulated with the following considerations:

- Clearly defining the geographical scope of the interventions
- Consideration of pre-existing options from previous studies
- Site visits
- Workshops and parallel workstreams such as the LCWIP and station masterplan studies

The long list consisted of 21 different schemes each varying in scope. These are set out below in Table 4-1.

Table 4-1: Long List of Options

	Option Name	Brief Option Description
HAR 1	Public Realm Improvements - Station Square	▪ Public realm improvements including signage and information boards ▪ Overhaul of existing square, while maintaining existing listed heritage structures ▪ Cohesive signage across the scheme and the wider town
HAR 2	Public Realm Improvements - James Street Pedestrianisation	▪ Improvements on James Street ▪ Pedestrianisation of James Street between Station Parade and Princes Street, for approximately 120m ▪ Likely to require demountable bollards ▪ Paving choice to reflect wider scheme ▪ Cohesive signage across the scheme and the wider town
HAR 3	Public Realm Improvements - Bower Street / Bower Road Pedestrian Improvements	▪ Public realm improvements including signage and information boards ▪ Scheme provides minor improvements to connect to the north end of Station Parade ▪ Could include footway resurfacing ▪ Cohesive signage across the scheme and the wider town ▪ May include a northern access from Victoria Car Park for cyclists, depending on scheme details
HAR 4	Station Gateway - Cheltenham Parade /	▪ Significant reconfiguration of existing signalised junction

	Station Parade junction reconfiguration	▪ Likely to include reduction to single lane approach on Cheltenham Road, with one-way TRO in operation from junction with Cheltenham Mount. Two-way operation maintained from Station Road northern arm ▪ Southbound only on Station Road southern arm. ▪ Localised widening of kerb and footway on north east corner to reduce crossing distances ▪ Two-way cycle track may continue to this junction
HAR 5	Station Gateway - Reduction of Station Parade to one lane	▪ TRO to restrict Station Parade to one-way (southbound) from junction with Cheltenham Parade to junction with Station Bridge to the south (circa 300m) ▪ Station Parade likely to be resurfaced in high quality paving (Yorkstone or similar), reducing traditional highway feel, and may include raised ped crossings (formal / informal) ▪ Carriageway narrowing to reduce speed and decrease crossing distances. Reduced on street parking provision ▪ Enhanced signage ▪ Pedestrian priority at signalised crossings
HAR 6	Station Gateway - Two-way cycle lane on Station Parade	▪ Installation of approximately 400m of two-way segregated cycle route on Station Parade, and other reallocation of road space for pedestrians ▪ Delivered in association with scheme above, reallocating space to active modes and reducing traffic in retail core ▪ Likely 4m wide cycle lane, delivered on western side, extending to Victoria Avenue in the south ▪ Will incorporate new cycle crossings to station (potentially parallel signalised), as well as delineated cycle routes into town (with accompanying TROs)
HAR 7	Station Gateway - Footway widening and associated civils works on Station Parade	▪ Pedestrian connection linking rail and bus station ▪ Significant widening of footway on eastern side of Station Parade and reduction in carriageway (associated with one-way restriction) to provide circa 200m of separate footway to the bus station, which can subsequently be designated as a dedicated waiting area ▪ Paving choice to reflect wider scheme, creating contiguous routes
HAR 8	Station Gateway - Station Parade / Station Bridge junction improvements	▪ Alteration of existing signalised junction to accommodate banned turns into Station Parade due to new one-way restrictions ▪ Includes new pedestrian islands to reduce crossing distances

		▪ Parallel crossing facility to the west provides dedicated cycle provision for two-way cycle track
HAR 9	Station Gateway - Signal upgrades on any of these junctions	▪ Junctions likely to all include MOVA and on-crossing detectors to maximise efficiency
HAR 10	Station Gateway - Package of Sustainable Travel Measures for Station	▪ EV chargepoint type and number to be determined ▪ Cycle storage should be standardised across NYCC where possible, examples in Greater Manchester supplied by Broxap
HAR 11	Junction Reconfiguration - Cheltenham Parade / Cheltenham Mount junction reconfiguration	▪ Cheltenham Parade eastern arm reduced to one-way from this junction, with a single east-bound lane to function as the minor arm ▪ Kerb build outs to change alignment, with two-way operation between Cheltenham Parade western arm and Cheltenham Mount ▪ Signage, lane markings, and TROs to reinforce new major arms as priority movement
HAR 12	Dragon Parade advisory cycle lane	▪ Circa 650m of on road advisory cycle lanes added to Dragon Road / Dragon Parade / Haywra Crescent / East Parade, between an existing off-road cycle track to the north and East Parade / Station bridge signalised junction ▪ Ideally 2m width, down to 1.5 where necessary
HAR 13	Junction Reconfiguration - Bower Road / Dragon Parade junction improvements	▪ Junction type changed from existing mini-roundabout to four-arm signalised ▪ North and south arms to include 'Dragon Parade advisory cycle lane' including ASLs ▪ Potential for early release cycle signals ▪ Includes some alterations to footway on the north of Bowyer Road approach to accommodate a short flared approach
HAR 14	Haywra Crescent / East Parade to Station Access advisory cycle lane	▪ Included in 'Dragon Parade advisory cycle lane' above and continuing on East Parade to Station Access
HAR 15	Junction Reconfiguration - East Parade / Station	▪ Existing signalised junction to include minor improvements in order to accommodate 'Dragon Parade advisory cycle lane', predominantly formed from on-road advisory cycle lanes and ASLs

	Access junction improvements	▪ Maintains existing shared use route between East Parade / Station Access and East Parade / Station Bridge on the eastern footway
HAR 16	Junction Reconfiguration - East Parade / Station Bridge junction improvements	▪ Existing roundabout reconfigured as a signalised junction, including staggered pedestrian islands- Station Bridge, East Parade, and North Park Road feature short flares to two approach lanes ▪ Two-way off-road segregated cycle lane provided to the south east between North Park Road / Marlborough Road and Station Avenue, linking to shared use route between East Parade / Station Access and East Parade / Station Bridge ▪ Includes toucan crossing between these locations
HAR 17	Beech Grove Active Travel Corridor	▪ Two-way cycle lane from junction with Otley Road to Victoria Avenue ▪ 3m two-way segregated cycle track on western carriageway, with 1.8 footway retained, approx. 550m ▪ Potential need to relocate parking onto eastern side of carriageway ▪ Junctions will need to include cycle priority crossings, likely 'bent-out'
HAR 18	Victoria Avenue Active Travel Corridor connecting Station Parade with Harrogate District Hospital	▪ Extensive scheme including the following elements: ▪ Victoria Avenue Cycle Lanes: circa 360m of two-way segregated cycle lanes on northern side of the carriageway, connecting with Station Parade ▪ Victoria Avenue / Marlborough Road: conversion of existing roundabout to 'Dutch'- style roundabout with cycle lanes around the outside edge, and priority crossings over side streets (requires loss of on-street parking provision) ▪ Queen Parade Cycle Routes: circa 162m of on-road advisory cycle markings. ▪ York Place / Park Parade: circa 550m of 2 way full segregated cycle track at approx. 3m wide, includes priority crossing over North Park Road. ▪ Stray Route Cycle Route: circa 200m of two-way segregated cycle route across stray land, following existing path alignment between Park Parade and Granby Road ▪ Granby Road Cycle Route: existing signed quiet route along residential road connecting to Harrogate to Knaresborough cycle route proposals

HAR 19	Harrogate to Knaresborough Cycle Link	▪ Installation of predominantly segregated cycling route approximately 3.4km in length for the Harrogate-Knaresborough section ▪ Significant proposed scheme led by NYCC, extends along the A59 from Kirkgate in Knaresborough to the Granby Road in Harrogate (and connection to the TCF scheme) ▪ The scheme is predominantly fully segregated cycle infrastructure, with hybrid / stepped infrastructure in places with higher 'place' function, such as local shops etc, priority is given at side roads where feasible and across vehicle access points ▪ Note- particular pinch point at Harrogate Road bridge over the River Nidd, with provision limited to on-road cycle lanes, likely advisory.
HAR 20	Hornbeam Park & Ride Expansion	▪ Conversion from surface car park to two-storey car park ▪ Scheme includes additional structure over existing car park to provide decked parking ▪ Could also include EV charge points and cycle storage hubs within enlarged footprint ▪ Adds resilience to rail integration and reduces need to cruise between local stations in morning peaks looking for appropriate spaces
HAR 21	Pannal Park & Ride	▪ Development of new P&R site at Pannal (on existing field by junction of A61 and A658) ▪ Existing agricultural land to be developed as a Park and Ride site to accommodate existing express bus service between Harrogate and Leeds, providing visitor parking into Harrogate and the possibility of modal shift to bus for journeys to Leeds for nearby commuters ▪ Would require third-party land, and creation of new junctions for access – potentially new fifth arm on existing A61 / A658 roundabout

4.1.2 What Critical Success Factors (CSF)s have been used to evaluate the Long List of options?

Four key success measures were developed for the LCR TCF, building on the objectives of the LCR SEP, the TCF economic framework and the objectives of the TCF programme. Supporting measures for each of the success measures were identified, together acting as CSFs for the development and evaluation of the initial long list of options. These are set out below in Table 4-2.

Table 4-2: Critical Success Factors

CSF	CSF Description

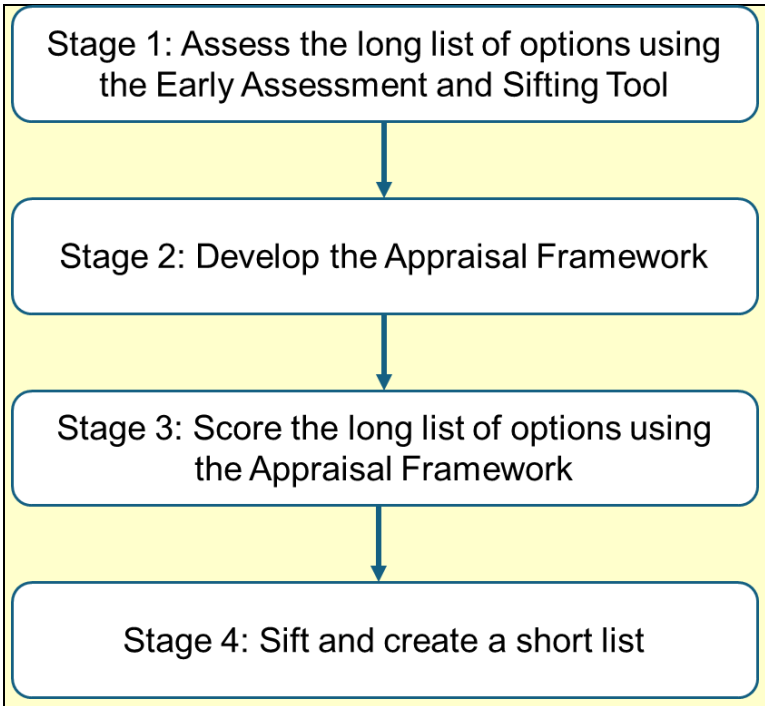
Enabling Inclusive Growth	Key measure: Ratio of earnings at 20th and 80th percentile ▪ Improved access to employment opportunities from deprived areas via public transport connections ▪ Improved access to education opportunities for young people ▪ More affordable public transport ▪ Increased uptake of active modes
Boosting Productivity	Key measure: GVA per hour worked ▪ Support economic growth and job creation by creating in excess of 1,200 jobs and over £100 million of GVA annually by 2036 to LCR ▪ Reduced commuter and student journey times on public transport and active modes ▪ Increased transport network capacity ▪ More efficient transport networks contributing to productivity growth across LCR
Delivering Clean Growth	Key measure: Reduction in carbon emissions ▪ De-carbonising the transport system through investment in clean technologies ▪ Cars de-prioritised from town and city centres – with a particular focus on air quality exceedance areas ▪ Improved air quality
Creating a 21st Century Transport System	Key measure: Mode share for sustainable modes ▪ Increased modal share for each of public transport, cycling and walking ▪ Improved bus speed and reliability ▪ Improved bus and rail passenger experience ▪ Cycling and walking becoming safer, quicker and more convenient

4.1.3 How has the Long List of Options been appraised?

Appraisal of Options at SOC

A four-stage methodology for assessing the long list was implemented, sifting the scheme options for packaging and inclusion in the SOC. A schematic of this process is shown in Figure 4-1 below, with full details of the appraisal and scoring set out in the OAR.

Figure 4-1: District Level Four Stage Prioritisation Methodology



The optioneering process was undertaken at a programme level for the LCR TCF SOC to further understand risks to delivery, cost estimates and value for money. This resulted in descoping or exclusions of components within the packages in some instances.

Initial shortlisted schemes for each district were developed. The WYCA Assurance Framework required a minimum of four option packages to be assessed. For the purposes of the WYCA TCF, the following option packages were identified for Harrogate at SOC stage:

- **Business as Usual (Do Nothing)** – baseline wherein no changes are implemented along the corridor
- **Less Ambitious**– includes the minimal provision to achieve the objectives of the TCF, focusing on the Harrogate Station Gateway and public realms elements
- **Preferred Way Forward**– builds on the Less Ambitious scheme but also includes the Beech Grove Active Travel Corridor, the Victoria Avenue Active Travel Corridor connecting Station Parade with Harrogate District Hospital and the Harrogate-Knaresborough cycle link
- **More Ambitious**– includes the Preferred Way Forward interventions and also proposals for development of a new Park and Ride (P&R) site at Pannal and expansion at the Hornbeam Park P&R site

Following submission of the SOC in March 2020, it was agreed that the Less Ambitious scheme package focused on Harrogate Station would be progressed, with further work undertaken to refine and modify these shortlisted options, prior to submission of the OBC.

4.2 Short List Options Testing

4.2.1 What is the Short List of Options?

A detailed, intervention-specific options appraisal exercise was undertaken to define the preferred scheme option for the Harrogate Station Gateway scheme – this is outlined below, with full details included in the OAR.

Strategic Review

NYC and HBC undertook a strategic review of the TCF scheme in July and August 2020. This resulted in the Project Board decision to exclude option HAR 5 (Reduction of Station Parade to One Lane), as well as the associated options HAR 6 (Two Lane Cycleway on Station parade) and HAR 7 (Footway Widening on Station Parade). The rationale for this decision was to ensure that a parallel scheme package, which would have less impact on the capacity of the highway network, remained a material design consideration.

Design Workshop

In response to the strategic review, a design workshop was held to review the scheme options and examine additional opportunities for meeting the scheme objectives. This resulted in the identification of the following alterations to existing scheme options:

HAR 2 (Public Realm Improvements - James Street Pedestrianisation) divided into three sub-options:

- **HAR 2A** – James Street Public Realm and Footway Improvements (no traffic access restrictions)
- **HAR 2B** – James Street Public Realm and Part-time Pedestrianisation (restrictions on traffic access outside of peak periods)
- **HAR 2C** – James Street Public Realm Improvements and Full Pedestrianisation (no access to traffic)

HAR 4 (Station Gateway - Cheltenham Parade / Station Parade junction reconfiguration) revised to include:

- Reconfiguration of existing signalised junction
- Reduction to single lane approach on Cheltenham Road, with one-way TRO in operation from junction with Cheltenham Mount
- One-way operation from Station Road northern arm, bus lanes on approach to the junction and reduced crossing distances
- Reduced on street parking provision
- Two-way cycle track on Station Parade

HAR 13 (Bower Road / Dragon Parade junction signalisation) amended to option **HAR 13A** and new option HAR 13B created:

- **HAR 13B** – Bower Road / Dragon Parade roundabout improvements

HAR 14 (Haywra Crescent advisory cycle lane) amended to option **HAR 14A** and new options created:

- **HAR 14B** – New kerb segregated cycle tracks on both side of carriageway between Haywra Crescent and Station Bridge

- **HAR 14C** – New kerb segregated cycle tracks on both side of carriageway between Station access junction and Station Bridge

HAR 16 (East Parade / Station Bridge junction signalisation) amended to option **HAR 16A** and new option HAR 16B created:

- **HAR 16B** – East Parade / Station Bridge roundabout improvements

In addition to the options above, and in response to the requirement to progress a two-lane scheme option for Station Parade, it was decided that two additional scheme options would be included to support access to the rail station from the NCR 75 via East Parade and Station Bridge:

- **HAR 22** – Cycle tracks on Bower Road between ASDA store access (NCR 75 connection) and Dragon Parade junction
- **HAR 23** – Cycle tracks on Station Bridge between Station Parade junction and East Parade Junction

OBC Options Appraisal

Following the design workshop, the refined scheme options were subject to further appraisal. This process is outlined below.

Multi-Criteria Assessment

The refined 24 options were subject to appraisal using a Multi-Criteria Assessment Tool (MCAT). The MCAT allowed for the assessment, scoring and ranking of the 24 options based on a range of criteria, including the TCF objectives and CSFs. Full details of the scoring are set out in the OAR. The outputs of the MCAT exercise were used to inform the subsequent design and scheme scenario selection processes.

LTN 1/20 Review

Following the publication of the DfT's LTN 1/20, a review of the SOC stage design proposals was undertaken. Designs that did not comply with the new standards were not progressed for further assessment. For example, the cycle lanes on Dragon Parade (Option HAR 12) and Haywra Crescent (Option HAR 14A) were deemed non-compliant due to the volume and speeds of general traffic on these links.

Transport Modelling

Local junction modelling was used to test the viability of the options, by capturing the impact that reallocation of road space may have on general traffic and how this would impact the wider network. This exercise identified that HAR 13A (Bower Road / Dragon Parade junction signalisation) and HAR 16A (East Parade / Station Bridge junction signalisation) would result in the junctions exceeding their capacity for general traffic movements during peak traffic periods. Alternative junction improvement proposals were progressed in their place: HAR 13B and HAR 16B.

Design Reviews

Bi-weekly design reviews were held with the Project Team throughout the feasibility design development stage. The Design Decision Log summarises the design development process.

This resulted in two design freeze workshops held on 28th January 2021 and 3rd February 2021 to review the scheme design information and indicative scheme package costs. From these workshops, the shortlisted packages of options for OBC appraisal were determined: Do Minimum (DMin), Do Something (DS) and Do Maximum (DMax).

Table 4-3: OBC Option Packages

	Scheme Option	DMin	DS	DMax
HAR 1	Public Realm Improvements - Station Square	✓	✓	✓
HAR 2A	Public Realm Improvements - James Street Public Realm and Footway Improvements	✓		
HAR 2B	Public Realm Improvements - James Street Public Realm and Part-time Pedestrianisation		✓	
HAR 2C	Public Realm Improvements - James Street Pedestrianisation			✓
HAR 3	Public Realm Improvements - Bower Street / Bower Road Pedestrian Improvements	✓	✓	✓
HAR 4	Station Gateway - Cheltenham Parade / Station Parade junction reconfiguration	✓	✓	✓
HAR 5	Station Gateway - Reduction of Station Parade to one lane		✓	✓
HAR 6	Station Gateway - Two-way cycle lane on Station Parade	✓		
HAR 7	Station Gateway - Footway widening and associated civils works on Station Parade	✓	✓	✓
HAR 8	Station Gateway - Station Parade / Station Bridge junction improvements	✓	✓	✓
HAR 9	Station Gateway - Signal upgrades on any of these junctions			✓
HAR 10	Station Gateway - Package of Sustainable Travel Measures for Station	✓	✓	✓
HAR 11	Junction Reconfiguration - Cheltenham Parade / Cheltenham Mount junction reconfiguration	✓	✓	✓

HAR 12	Dragon Parade advisory cycle lane	Discounted		
HAR 13A	Junction Reconfiguration - Bower Road / Dragon Parade junction signalisation	Discounted		
HAR 13B	Junction Reconfiguration - Bower Road / Dragon Parade roundabout improvements	✓		
HAR 14A	Haywra Crescent / East Parade to Station Access advisory cycle lane	Discounted		
HAR 14B	Haywra Crescent / East Parade to Station Bridge segregated cycle track	✓		
HAR 14C	East Parade to Station Bridge segregated cycle track	✓	✓	✓
HAR 15	Junction Reconfiguration - East Parade / Station Access junction improvements	✓	✓	✓
HAR 16A	Junction Reconfiguration - East Parade / Station Bridge junction signalisation	Discounted		
HAR 16B	Junction Reconfiguration - East Parade / Station Bridge roundabout improvements	✓	✓	✓
HAR 22	Cycle tracks on Bower Road between ASDA store access (NCR 75 connection) and Dragon Parade junction	✓		
HAR 23	Cycle tracks on Station bridge between Station Parade junction and East Parade junction	✓	✓	✓

WYCA Design Review Workshop

Following review and initial comments on the frozen OBC design drawings by representatives of WYCA's design quality review panel, a design workshop was held between WYCA and WSP on 24th February 2021. This workshop provided WYCA with additional background information on the design development process and identified opportunities for the Project Team to progress the designs following the completion of the public consultation activities.

FBC Design Development

Following submission of the OBC, further work has been undertaken to refine and VE the scheme options, based on the latest cost estimates and funding available. This resulted in some elements being scaled back and/or descoped to deliver cost-savings.

The scheme designs have also evolved as a direct result of stakeholder feedback, highlighted in the second and third rounds of consultation (November-December 2021 and July-August 2022, respectively). This feedback included a strong preference for one-way traffic restrictions on Station Parade as well as additional lighting proposals and street furniture, such as benches and bins.

However, following the development of the scheme from a feasibility study to very near to completion of a Detailed Design to meet the objectives of the TCF from WYCA, the council received a legal challenge to the scheme. As a result of this, a revised scheme was developed that sought to minimise the risk of further legal challenge while respecting previous feedback, delivering maximum benefits to the people of Harrogate and retaining the core TCF station gateway focus.

Section 1.1 of this FBC provides a description of the preferred scheme option for the purposes of the economic appraisal. A full overview of the process and key changes to the scheme are provided in the Options Assessment Report Addendum.

4.2.2 How has the Short List of Options been appraised?

The appraisal approach for the shortlisted options is set out in the Appraisal Specification Report (ASR) and is described in detail in Section 4.3.1 below. The approach was defined and submitted to the Combined Authority to support a proportionate approach and is consistent with the appraisal of the TCF Selby and Skipton Schemes, using the same spreadsheet-based approaches to assess rail access, bus improvements, public realm benefits and overall scheme value for money.

The approach developed for the appraisal of the scheme includes the following:

- **Highway user impacts** due to vehicle journey time changes using LinSig models and Transport User Benefit Appraisal (TUBA) Software to calculate monetised impacts on highway users
- **Rail user benefits** (for those who access the station by walking, cycling and by bus) captured using a bespoke Rail Access Model (RAM) using MOIRA data and outputs from the AMAT and ABC tool
- **Bus user impacts** quantified using the Paramics Discovery microsimulation model (developed for the appraisal of Harrogate's Town Centre Masterplan)
- **Noise, air quality and carbon benefits** based on DfT's Marginal External Cost (MEC) and WSP Carbon Zero Tool
- **Walking and Cycling benefits** using the DfT's AMAT tool (May 2024)
- **Accident** impacts using the DfT's MEC method
- **Benefits arising from improvements to public realm** using the latest version of the Ambience Benefit Calculator (ABC) tool, developed by Transport for London (TfL)

The preferred scheme option has been assessed in detail in this FBC and an updated version of the Appraisal Summary Table (AST) has been completed representing the revised preferred option for the Harrogate Station Gateway Improvements scheme.

A number of sensitivity tests have also been undertaken to understand how some of the parameters and assumptions used within the appraisal of the Harrogate Station Gateway

Improvements scheme influence the economic case of the proposal. Details of the sensitivity tests are set out in Section 4.3.7.

4.2.3 How does the Scheme contribute to the SEP Headline Indicators (access the Plan here)?

As highlighted in Section 2.1.2, since 2016 the SEP set out WYCA's priorities for growth and development. However, in response to the latest challenges facing the region as well as WYCA's additional responsibilities and mayoral commitments, the SEF was developed in place of the SEP. Building on the SEP, the SEF sets out WYCA's vision for the region and the priorities for achieving this, in light of new challenges during periods of change and uncertainty.

Table 2-12 in the Strategic Dimension details the scheme's contribution to SEF Priorities, with a summary provided in Table 4-4 below.

Table 4-4: Summary of Contributions to SEF Priorities

Priority	Direct Contribution	Indirect Contribution
Boosting Productivity	✓	
Enabling Inclusive Growth	✓	
Tackling the Climate Emergency	✓	
Delivering 21st Century Transport	✓	
Securing Money and Powers	✓	

4.3 Preferred Option Testing

Part 2: Appraisal of Transport Schemes

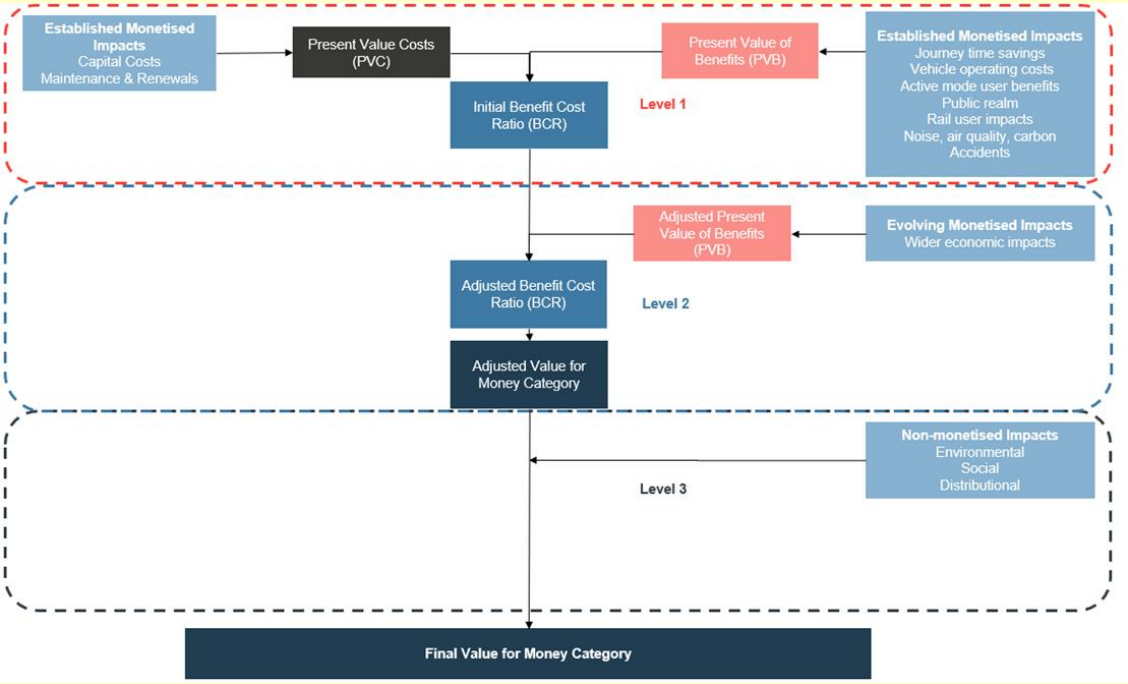
4.3.1 What methodologies have been used for modelling and appraisal of the scheme?

The typical impacts of a transport scheme are documented in the DfT and the WYCA Technical Assurance Framework. Table 4-5 categorises impacts that are established (Level 1), evolving (Level 2) and non-monetised (Level 3). The established monetised impacts form part of the 'Initial' Benefit-Cost Ratio (BCR) metric with those evolving monetised impacts reflected as part of the 'adjusted' BCR metric. To provide a comprehensive view of the total impacts of the scheme and the resulting VfM, established, evolving and non-monetised impacts all need to be considered.

Table 4-5: Impacts from transport proposals

Established Monetised Impacts Level 1	Evolving Monetised Impacts Level 2	Non-monetised Impacts Level 3
Capital, Maintenance & Renewal Cost Journey time savings – General Traffic Vehicle Operating Costs Active Mode User Benefits Public Realm Rail Impacts Noise, Air quality and GHG emissions Accidents	No Level 2 impacts	Social Environmental Distributional Wider Economic Impacts

Figure 4-2: VfM Assessment Process



Scheme Impacts

Table 4-6 lists the impacts of the scheme that have been identified, along with a short description of the approach and methodology used to appraise them.

Table 4-6: Scheme Parameters

Impact	Description	Methodology
Capital costs	Costs directly related to the delivery of the scheme	Scheme capital costs have been estimated based on a Bill of Quantities (BoQs) from the contractor. A risk adjusted cost estimate has been calculated using outputs from the Quantified Risk Assessment (QRA), based on final tender prices.
Operational, maintenance and renewal costs (OMR)	Costs related to the ongoing operation, maintenance and renewal of the infrastructure	Assumptions have been used to derive these costs in proportion to the capital costs. Additionally, as a 60-year appraisal has been used, end-of-life asset replacement costs have been considered for the elements with a shorter asset life.
Highway Impacts	Direct impacts of the scheme related to changes in journey times, vehicle operating costs and accident rates	Localised junction modelling (LinSig) using turning counts from the VISUM (strategic) model. TUBA has been used to monetise the changes in journey times, vehicle operating costs, greenhouse gas emissions and accidents.
	Mode shift to active modes and rail	Decongestion impacts related to mode shift away from private car have been monetised within the active mode and rail appraisals using the Marginal External Cost (MEC) approach.
	Bus impacts	Impacts of changes to junction configurations and signal timings on bus journey times have been assessed using localised junction modelling in LinSig.
Active Mode Impacts	Public realm and journey quality impacts	The Active Mode Appraisal Toolkit (AMAT) has been used to monetise the journey quality improvements for cyclists and Ambience Benefits Calculator (ABC) used to monetise the journey quality improvements for pedestrians.
	Increase in active mode demand	The uplift in the uptake of active modes has been assessed using examples of similar schemes. The health impacts related to an increase in walking and cycling levels have been monetised in AMAT.

	Mode shift away from private car	The external impacts of the mode shift away from private car to active modes have been assessed using the MECs approach within AMAT.
Rail Impacts	Impact of the quality improvements on current rail users accessing the station	These impacts are captured within the active mode appraisal.
	Increase in rail demand, and revenue	Some of the new active mode trips will be made to access the station. The impacts of increased rail usage have been captured within the Rail Access Model (RAM) to quantify the impact of improved station access on rail demand and revenue. The approach is based on the guidance in section B9.4 of PDFHv6.0.
	Mode shift away from private car	The external impacts of the mode shift away from private car to active modes has been assessed using the MECs approach within the RAM.
	Crowding	With increased rail usage, the loading factors on rail services are likely to increase. An analysis has been conducted to assess the significance of the change.
Other social, environmental and distributional impacts	Whole life carbon impacts, environmental, social and distributional impacts	Monetised whole life carbon impacts and qualitative appraisal of the non-monetised impacts of the scheme.
Wider Economic Impacts	Impacts related to increased land values and economic activity	The improvements around the station are likely to support further housing development and investment within the area with positive impacts on the existing developments. Additionally, increased economic activity around the station is likely to have beneficial impacts on the businesses located in vicinity of the station and town centre.

Cycle storage design and demand

LTN 1/20 covers the design of parking facilities and suggests that cycle parking should be provided at the following locations.

- Places of residence
- Interchanges with other modes of transport
- Short stay destinations such as stops and cafes
- Long stay destinations such as for work or education.

The principal aim of the scheme is to encourage increased cycling activity by providing parking facilities which give increased convenience, comfort and safety to cyclists. Cycling increases the reach of public transport services, and the combination of cycling and public transport helps people to make journeys that are too long to cycle. This will be generated by improved design standards for cycle parking that provides the necessary capacity to meet current and future cycle demand.

LTN 1/20 sets out minimum or preferred capacity standards for cycle parking at public transport interchange hubs, of relevance to the scheme under consideration. At major transport interchanges (such as Harrogate rail station), the majority of people accessing the station by bike will require a short stay requirement that is obvious, easily accessed and close to the destination. The suggested minimum cycle parking capacity for a major interchange is 1 per 200 daily users (LTN 1/20, page 134).

NYC conducted a Rail Station Survey in 2017 to understand the main method of transport used to travel to Harrogate Station. The data shows that the highest proportions of respondents arrived at the station on foot (54.5%), and by car (23.3%) - a much higher proportion of those arriving by car were passengers rather than drivers. The proportion of respondents accessing the station on foot correlates with the results showing the station catchment and the level of local area origins.

Despite the localised journey origins, a small number of journeys to the station were made by bus (7.9%) and only 0.5% of journeys to the station were made by bike. This may suggest a lack of appropriate infrastructure to cater for these modes and/or a perception of poor interchange facilities.

There were a total of 1,502,560 entries and exits to Harrogate Rail Station in 2022/23, equivalent to an average of 4,116 daily entries and exits. This is divided by minimum cycle parking capacity for a public transport interchange, documented in LTN 1/20. It is therefore estimated that approximately 21 cycle parking spaces will be required to accommodate daily flows of people accessing Harrogate rail station in any given day.

There are a total of 31 cycle parking facilities planned for the Harrogate Station Gateway Improvement scheme at the following locations. From a low base, any current and forecast increase in cycling to and from the Station is expected to be accommodated by the necessary cycle parking capacity provided by the scheme.

- 2 on Cheltenham Parade
- 7 on Station Square
- 12 in Station Car Park
- 3 on Albert Street Junction
- 7 on western side of One Arch near junction with Station parade/Cheltenham Parade

Capital Costs

Scheme capital costs are estimated, based on a Bill of Quantities (BoQs) that represent the target costs from the contractor. To convert these costs to Present Value Costs (PVCs) for the economic appraisal, the following adjustments have been applied in accordance with DfT TAG Unit A1.2.

- **Components of investment costs identified**, including the direct (base) and indirect costs associated with the scheme.
- **Real inflation** added to headline capital costs.
- **A risk adjusted cost estimate** has been calculated using outputs from a detailed Quantified Risk Assessment (QRA). The QRA allows an expected value of the cost of the scheme to be calculated taking account of the average of all possible risk outcomes and the probabilities of those outcomes occurring. The P80 risk-cost has been utilised to confirm the risk element of the capital costs and derive the risk adjusted cost estimate at FBC stage.
- **Rebasing to the DfT's base year of 2010**. To do so the contractor costs in current prices are rebased using the GDP deflator series from the TAG Databook v1.23 (May 2024).
- **Discounting to the DfT base year of 2010**. Discounting at 3.5% per annum for the first 30 years and 3.0% per annum for the next 30 years over a 60-year appraisal period.
- **Converting to market prices**. The economic case requires the conversion of factor costs (labour, capital, land) to market prices, using a factor for the average rate of indirect taxation in the economy of 1.19.

Maintenance and Renewal Costs

An estimate of whole-life costs including maintenance and renewals is included in the derivation of the Present Value Costs (PVCs) associated with the scheme. This primarily consists of the maintenance costs of new cycling and walking infrastructure, public realm enhancements and any additional highway infrastructure, such as road markings and resurfacing.

The total maintenance and renewal cost has been assumed to amount to 0.1% of the direct construction costs for each year of the appraisal period. This assumption is based on benchmarks observed on similar schemes and also considers that a large proportion of the proposed changes relate to the improvement of existing infrastructure, that may generate some cost savings in terms of renewal and maintenance.

Highway

To produce a robust assessment of the traffic impacts from scheme implementation, localised junction modelling (LinSig) has been used to provide inputs into the Transport User Benefits Appraisal (TUBA). TUBA software undertakes the economic appraisal of transport schemes in accordance with the DfT's TAG Unit A.1.1 Cost-Benefit Analysis and uses operational modelling and traffic flow impacts from the LinSig model to monetise the effects of the scheme on journey time savings, vehicle operating costs (VOCs), Greenhouse Gas Emissions (GHG) and indirect tax. This has been assessed by comparing the following Do Minimum (DM) and Do Something (DS) scenarios.

Table 4-7: DM and DS Core Scenarios

Scenario	Forecast Year	Demand and Infrastructure Supply Assumptions
Do Minimum (DM)	2024	Without Harrogate Station Gateway + all committed development + all committed transport infrastructure

	2039	Without Harrogate Station Gateway + all committed development + all committed transport infrastructure
Do Something (DS)	2024	With Harrogate Station Gateway + all committed development + all committed transport infrastructure
	2039	With Harrogate Station Gateway + all committed development + all committed transport infrastructure

TUBA calculates the benefits of journey time savings by comparing the travel times in the DM scenario to those in the DS scenario for the AM, PM and inter-peak (IP) periods. These time periods are then assigned economic valuations (values of time or VoT) to determine the monetised benefits. The appraisal uses the latest version of TUBA v1.9.23 available at the time of undertaking the appraisal and utilises the economic parameter file version 1.9.23 which is based on the TAG Databook v1.23 (May 2024).

Buses

At the previous OBC stage of transport business case development, a VISUM strategic model and Paramics microsimulation model were used in the assessment of the scheme impacts for public transport users. Specifically, the outputs from the VISUM model were used to inform the appraisal of journey time benefits and the outputs from the Paramics model were used to extract journey time savings relating to buses. The scheme tested at OBC included the removal of a lane at Station Parade and other interventions. This led to a more significant redistribution of traffic across the town and effects on bus journeys.

As part of the post-OBC review, the scheme underwent a significant de-scoping exercise, the key change being the retention of two lanes of road traffic along Station Parade. The revised scheme (essentially the reconfiguration of two existing signalised junctions) was deemed too minor to accurately represent within the VISUM strategic model and therefore a decision was made to develop an alternative approach to inform the journey time appraisal at FBC.

Initial test runs of the Paramics model were undertaken on the revised scheme at FBC, however, these showed a negligible change in forecast bus journey times. Therefore, a decision was made to proceed using industry standard local junction modelling software, LinSig. The Paramics modelling was not formally completed at FBC stage.

LinSig modelling was undertaken for two junctions at FBC stage. LinSig software allows for the detailed modelling of the revised junction layout and staging, including the pedestrian and cycle phases at the following locations:

- Site 1 refers to the junction of A61 Station Parade/Cheltenham Mount/Lower Station Parade, north of the railway station.
- Site 4 refers to the junction of A61 Station Parade/ Station Bridge/Albert Street, south of Harrogate station.

Active Modes (Walking and Cycling)

The scheme is complex in terms of the benefit it provides for active modes. To capture all benefits relevant to the scheme two different toolkits have been used to calculate the ambience (journey quality) and public health benefits for active mode users. To avoid double counting, where the Ambience Benefits Calculator (ABC) tool was used, the journey ambience benefits reported in the AMAT were removed from the analysis.

As such, the ABC tool has been used to capture journey quality and public realm benefits for pedestrians from scheme implementation, with the AMAT capturing cycling upgrades that improve the journey experience, such as the provision of cycle facilities/parking/secure storage etc as well as the health and mode shift impacts related to increased uptake in walking and cycling.

The DfT Active Mode Appraisal Toolkit (AMAT) (May 2024) has been used to monetise the impacts of the active mode infrastructure proposed as part of the scheme. The AMAT calculates benefits in relation to a range of impacts linked to an increase in active mode use as well as changes in journey quality. These benefits relate to three key areas: health, journey quality and mode shift. Table 4-8 summarises each of these benefit streams.

Table 4-8: Scheme Parameters

Benefit Stream	Description	Impacts
Health	Reduced risk of premature death	Improved health from greater physical activity
	Absenteeism	Reduced levels of absenteeism from employment and a reduction in 'sick days' due to increased physical activity.
Journey Quality	Journey Ambience	Improved travel experience due to the provision of cycle infrastructure and improved environmental conditions on route. Journey quality impacts for pedestrians have been monetised using the ABC tool.
Mode Shift	Congestion benefit	A reduction in vehicle kilometres, reduces the level of congestion experienced by road users.
	Infrastructure	Reduction in infrastructure maintenance costs due to reduced private vehicle usage.
	Accidents	Reduction in accidents due to reduced private vehicle usage.
	Local Air Quality	A reduction in NO2 and PM2.5 emissions from a reduction in vehicle kilometres, leading to an improvement in local air quality.
	Noise	Reduced noise levels due to lower private vehicle usage.

To estimate the benefits, the AMAT requires inputs in terms of current and anticipated demand as well as the change in infrastructure provision. This is combined with assumptions from the National Travel Survey (NTS) regarding journey length, speeds, journey purpose and cycling diversion factors.

The AMAT allows current infrastructure for the route to be selected and proposed new infrastructure to be input. The AMAT User Guidance (May 2022) provides illustrative examples of different walking and cycling infrastructure types that have been used to inform the inputs for the 'before' (Do Minimum) and 'after' (Do Something) states. Detailed design drawings have also been considered to categorise new infrastructure for the purposes of the AMAT and economic appraisal.

To estimate the baseline demand for walking and cycling, the following sources of data have been used from the Vivacity website, which provides sensor data specifically on cycle and pedestrian movements to monitor trends in travel behaviour. Sensors are located at the Station Parade and Victoria Avenue junction immediately to the south of Harrogate railway station and provide real time information on pedestrian and cycling movements. Figure 4-3 shows the location of the count site in relation to the scheme extent.

Figure 4-3: Scheme Extent and Location of Count Sites

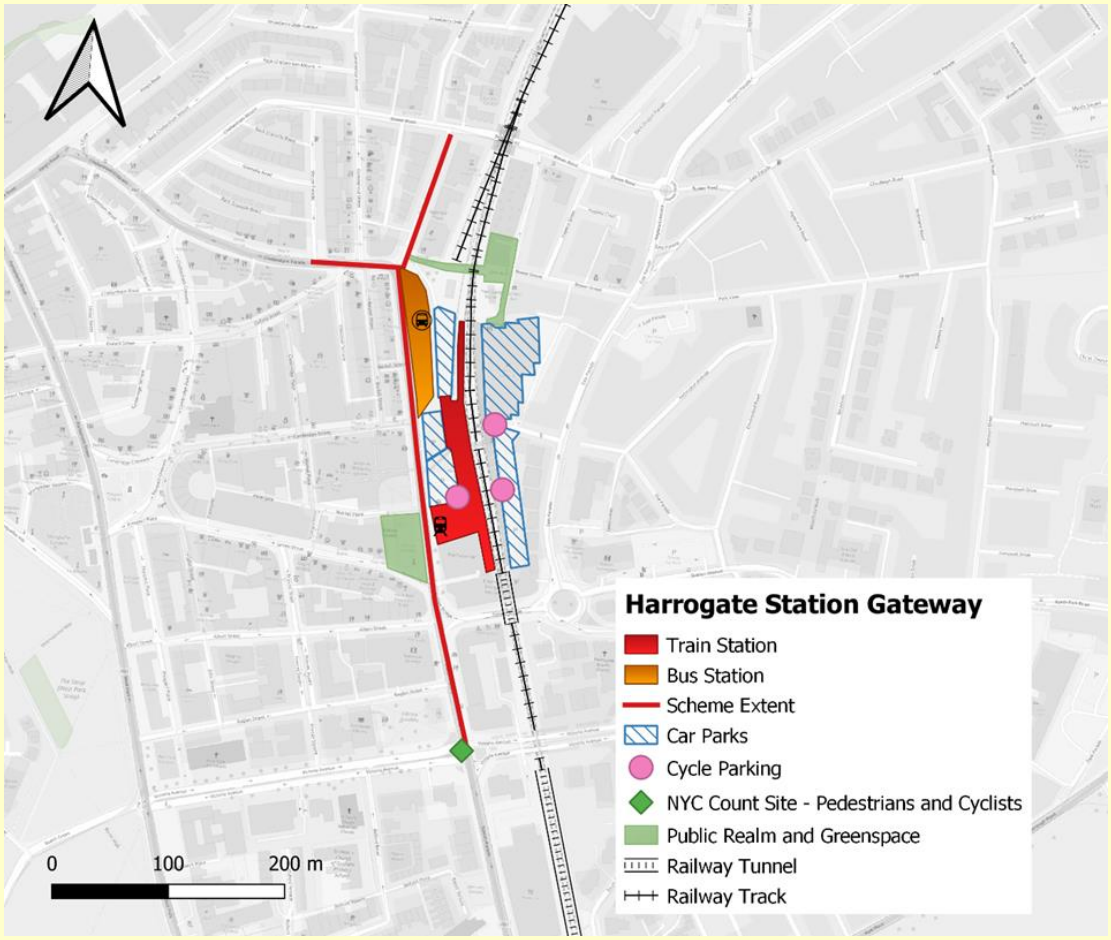


Table 4-9 shows the count data used for the economic appraisal, based on a weighted average of daily weekday and weekend (Saturdays only) cycling and pedestrian trips over a three-month

period from May to July 2024. The count data includes all cycle and pedestrian movements and the sample was considered representative in terms of weather conditions and timings, with no seasonal adjustments made.

Table 4-9: Active Mode Assumptions

Assumptions	Details
Opening year	2027
Appraisal Period	60 years
Local Area Type	Other Urban
Number of trips without the proposed intervention (Do Minimum)	The current number of walking and cycling trips along the Station Parade active mode travel corridor per day. This is extracted from real-time Vivacity classified count data for pedestrians and cyclists and an average taken across a three-month period spanning May to July 2024.
Number of trips with the proposed intervention (Do Something)	The number of cycling trips per day that are expected due to scheme implementation. The change in the number of cycling and walking trips due to the scheme are estimated using the comparative study approach.
The average proportion of trip that uses the scheme infrastructure	This has been calculated by dividing the length of the Station Parade active mode travel corridor by the length of an average cycling trip based on data from the National Travel Survey (NTS). This has been calculated at 6% and 37.80% for cycling and walking respectively.
Current cycling infrastructure for this route	No provision
Proposed new cycling infrastructure for this route	On-road segregated cycle lane.

Count data is used to understand the current (baseline) demand for walking and cycling. For cycling, the average proportion of a trip that uses the scheme infrastructure is calculated by dividing the length of the scheme (0.26kms) by the average cycling trip length from the NTS (5.71kms). For walking, the length of the scheme (0.45kms) is divided by the average walking trip length from the NTS (1.18kms). This provides the extent of benefits that can be attributed to the scheme.

Journey purpose splits (commuting, business and 'other') for cyclists and pedestrians are taken from the TAG Databook (May 2024) Table A1.3.4, in the absence of survey data on journey purpose for cyclists and pedestrians.

An annualisation factor of 305 has been applied to the trip estimation to expand the daily average estimate to an annual estimate based on weekdays and Saturdays.

As the proposed walking and cycling infrastructure is within the highway boundary and is being delivered as part of the highway, an appraisal period of 60 years has been adopted for the active mode appraisal. To take into account a shorter asset life of some elements of the proposed infrastructure, additional renewal costs have been considered for end-of-life asset replacement.

Public Realm (Journey Quality) – ABC Tool

Journey quality valuation relates to improvements to the overall travel environment when undertaking journeys and are based on market research into how much per trip a traveller is willing to pay (WTP) for improvements.

Transport for London's (TfL) Ambience Benefits Calculator (ABC) tool is used to assign monetary values to physical attribute changes in streetscape associated with the Harrogate Station Gateway scheme. The toolkit assigns WTP estimates for improvements in the physical walking environment, based on survey evidence from London. This is converted into a pence per trip or a pence per minute depending on the type of physical attribute upgraded as part of the scheme.

An area cost adjustment factor is applied to reflect the relationship between median hourly earnings in London and Harrogate. Using Office for National Statistics (ONS) data from the Annual Survey of Hours and Earnings (ASHE) statistical series, earnings in Harrogate were approximately 77% of earnings in Greater London in 2023. A factor of 0.77 is therefore applied to the ambience benefits calculation.

To avoid double counting of journey quality benefits from improvements to public realm, only walking outputs from the ABC tool have been taken into account in the valuation and monetisation of physical attribute changes. The AMAT has been used to appraise the benefits associated with additional facilities and infrastructure for cycling improvements, which is based on a similar WTP approach.

The annual monetised benefits from the ABC tool are expressed in a 2014 price base. To be consistent with TAG benefits across a 60-year appraisal period, all component links that incorporate walking infrastructure improvements have been rebased and discounted to 2010, using the following adjustments.

- Deflate the benefits from 2014 to 2010 in line with GDP deflator forecasts from the TAG Databook v1.23 (May 2024)
- Apply discounting at 3.5% for the first 30 years of the appraisal period and 3.0% for the next 30 years of the appraisal period.

It is assumed that the WTP estimates are based on survey data and that they are already expressed in market prices. As such, there is no requirement to convert from factor prices to the market price unit of account. Assumptions relating to the changes in physical attributes associated with the scheme that improve journey quality are considered. These are grouped into the following categories consistent with the ABC Toolkit methodology.

- Crossings
- Street security
- Street signs
- Pavements

- Facilities and visual attractions

Rail User Impacts

The AMAT and ABC tools do not capture active mode benefits to rail users accessing Harrogate Station. The scheme aims to improve the active mode infrastructure, improving journey quality for current users as well as attracting more active mode usage. The methodology used to monetise the active mode impacts (i.e. AMAT and ABC) does not take into account the effects that increased active mode usage may have on rail usage. In the case of this scheme, it can be expected that some of the new walking and cycling trips will be made to access the rail station.

Hence, a methodology has been developed to consider the impacts of the scheme (i.e. improvements to access/egress infrastructure) on rail usage, and hence rail revenue and indirect tax revenues as the external impact related to mode shift away from private car to rail. Table 4-10 shows the methodology used within a bespoke spreadsheet model i.e. the Rail Access Model (RAM), to calculate the demand uplift related to the changes in access/egress journey quality.

Table 4-10: Summary of the methodology used in the Rail Appraisal Model

Step	Description
Active Mode Appraisal	Appraisal of journey quality benefits using AMAT and ABC tool.
Establish base demand for rail	Rail demand sourced from MOIRA with revenue, Generalised Journey Time (GJT), distance data processed by flow and ticket type.
Source assumptions and values from the guidance	GJT elasticities, diversion factors, Value of Time (VoT) values sourced from the guidance.
Convert journey quality benefit to GJT equivalent	VoT values used to convert pence per trip values to GJT minutes with access/egress penalty applied.
Establish the number of station users benefitting from the proposed improvements	Based on station survey data from 2017, the number of station users who will experience the proposed improvements are identified to calculate a benefit for an average trip.
Construct extended GJTs	Extended GJTs constructed for DM that include access/egress time and DS taking into account the reduction due to journey quality changes.
Evaluate the resulting demand uplift	Use the approach set out in PDFH, section B9.4 to calculate the demand uplift resulting from the proposed access improvements by flow and ticket type.
Calculate change in revenue and mode shift impacts	Change in revenue calculated based on average fare data from MOIRA and mode shift impacts monetised using the MECs approach.

Apply exogenous growth	Background growth applied for rail impacts from the MOIRA year for the whole appraisal period based on the guidance.

The methodology used to estimate the uplift in rail demand arising from improvements to station access is based on guidance in the Passenger Demand Forecasting Handbook (PDFH) concerning the demand response to changes in GJTs. The general methodology underpinning the RAM is based on the Do Minimum GJT, adjusted for walking and cycling access time. The active mode benefits monetised within the AMAT and ABC are used to convert the pence per trip and/or pence per minute into access minute savings within the Do Something GJT reduced by the converted access time savings. Elasticities are then applied to forecast the resulting change in rail demand. Standard rail appraisal is then conducted to monetise the change in rail demand, with the impacts including rail revenue and indirect tax as well as Marginal External Costs (MECs). Further detail on impacts assessed in the RAM are provided in Table 4-11.

Table 4-11: Impacts assessed in the RAM

Step	Description
Change in rail revenue related to an increase in rail demand	Based on the demand uplift calculated at OD pair level and a subsequent change in rail revenue. Revenue grown in line with the background growth forecasts outlined above. In line with TAG A5.3, section 2.3.6, the average revenue has been grown by RPI+1% per annum for the first 20 years with average revenue constant in real terms thereafter.
External impacts related to a mode shift away from private car to rail	Marginal External Cost (MEC) approach based on the assumed diversion and car occupancy factors.
Indirect tax impacts related to a change in rail revenue	Shift in expenditure to non-taxed rail tickets will lead to a reduction in tax revenue for the central government.
Crowding impacts related to an increase in rail usage	Initial analysis has been conducted to understand how significant the increase in rail demand will be and whether the impact on crowding levels is significant enough to necessitate monetising the impacts of increased crowding. Due to a relatively minor change, this impact has been assessed qualitatively.

Noise, Air Quality and Greenhouse Gas Emissions (GHGs)

The DfT's Marginal External Cost (MEC) approach is adopted to estimate the change in the external costs of vehicle use. The approach utilised involves estimating the change in vehicle kilometres from modal shift from private car to walking, cycling and rail as a result of scheme implementation by comparing the DM and DS scenarios for the opening year and forecast year. The results are extended across the 60-year appraisal period and use outputs from the AMAT, ABC, RAM and the LinSig model to calculate the marginal external costs.

The general methodology for the application of MECs is based on the following step-by-step process outlined in TAG Unit A5.4 Marginal External Costs.

- Estimate the change in vehicle kilometres
- Analyse the characteristics of vehicle journeys removed i.e. by mode class and journey purpose
- Calculate the MECs for the appraisal period
- Discount the benefits and costs over the 60-year appraisal period to the DfT's base year of 2010.

Carbon Appraisal

An updated carbon appraisal has been undertaken for the proposed scheme at FBC stage, following the initial assessment at OBC using WSP's Carbon Zero Appraisal Framework.

The whole-life carbon (WLC) impact of the scheme has been calculated in line with TAG unit A3 and WYCA Carbon Impact Assessment guidance, including the consideration of the CERP low carbon (LC) scenario. This LC scenario is a sensitivity test required for both the economic and carbon assessments of transport schemes at FBC stage. This is a quantitative estimate, with monetised costs and a clear carbon narrative for the scheme in the context of the wider network.

The assessment covers the carbon emissions associated with the construction, operation and end of life of the scheme. The capital carbon emissions from the scheme's construction, maintenance and end of life have been quantified using a Bill of Quantities (BoQs) produced as part of the cost estimation, and the end-user carbon emissions have been quantified using TUBAs, RAMs and AMAT outputs.

Although the use of the Emissions Factor Toolkit (EFT) is deemed best practice by the DfT to quantify the user emissions of the scheme, this approach was unfeasible for this scheme. The highway impacts of the scheme were appraised using a LinSig local junction model. The small scale and focused local junction model assesses the performance of a single junction rather than at a network level. This means it does not provide a link-by-link data output, based on Average Annual Daily Traffic (AADT) required for EFT. Because of this, the TUBAs from the LinSig modelling have been utilised.

The CERP LC scenario has not been included in the uncertainty analysis or sensitivity testing, due to the very small impacts from a revised growth profile inherent in the CERP.

Accidents

The MEC approach is applied to calculate the overall benefit as a consequence of mode shift to bus, rail, walking and cycling.

Wider Economic Impacts and Land Value Uplift

The scheme will also generate wider economic impacts that are beyond the impacts directly related to transport markets. These may include impacts related to land value uplifts as well as increased economic activity. It can also be expected that the scheme may encourage further development and investment in the area.

The station will act as a gateway and focal point in the town, with the potential to help facilitate the development of new housing and employment sites. Station enhancements are also likely to increase the value of existing land and properties within a certain radius surrounding the station. Given the characteristics of improvements at Harrogate Station, these will impact positively on both new and existing developments.

At the OBC stage, based on land value uplift methodology and additionality guidance, the land value gain from unlocked housing was calculated for the scope of the scheme at the time. The total land value gain across 280 units at seven housing sites adjacent to the station was estimated.

Given the descoping of the scheme it is no longer anticipated that the value of land uplift will be at a scale previously estimated. However, the scheme will still deliver an improved experience for those walking, cycling and using the bus and rail stations, and interchanging between sustainable modes. This will increase the attractiveness of residential and commercial developments in the vicinity of the scheme, demonstrating the wider benefits it will bring to the local economy.

Empirical evidence has clearly shown that the improvements to stations (and especially where stations attain 'gateway' status) generate considerable value gains against existing properties and developments. This may occur in the surrounding area around Harrogate rail station. The station improvements will also help attract higher value jobs in the immediate vicinity of the station, thus generating more GVA and increased value at these new office developments. There are also expected to be wider benefits related to increased economic activity from new station demand and increased levels of pedestrian and cyclist activity which may increase income for local businesses operating around the station. This may also lead to increased investment in the area, attracted by higher footfall and increased economic activity.

4.3.2 What forecasting methodologies have been used for the scheme appraisal?

Highway User Impacts

The local transport network has been developed to sufficiently represent the layout of the transport network in the two forecast years, 2024 and 2039 in the with and without scheme scenarios, the DS and the DM, respectively. The base and with scheme LinSig models have been developed for two junctions along the A61 Station Parade.

The use of two separate LinSig models is considered appropriate as there is no blocking back of queues from the Station Parade / Station Bridge junction to the Cheltenham Parade junction. The two junctions are located more than 200m apart with various minor access points and crossings in between, which would tend to break the flow of traffic.

The base, do minimum and do something LinSig models for the two forecast years have been populated with traffic flows from the VISUM model to provide some consistency with the previous model undertaken at OBC stage.

The base model was reviewed and updated in 2020 to address the lack of detail and to calibrate and validate the traffic counts within the VISUM model framework. Details of these refinements

and the previous updates are contained within the appendices of the original OBC submission in 2021.

- Harrogate TCF – VISUM model Updates Technical Note (December 2020).
- Forecast Modelling and Highway User Benefits Report.

The Do Minimum scenario for the modelling comprises the existing transport network with the addition of any transport schemes and/or land use changes (housing and/or employment) likely to come forward in the 2024 and 2039 forecast years, as set out in the uncertainty log. The Do Something scenario or with scheme scenario has been created for the preferred option at FBC stage and includes modifications to the existing local transport network for the two forecast years. This includes:

- Amended layout of the Station Parade junction with Cheltenham Parade/Bus Station Access and with Station Bridge and Albert Street.
- New signalised junctions and walking and cycling points at Station Parade/Station Bridge and Station Parade/Cheltenham Parade.

Forecast demand for the two assessment years has been derived in line with guidance set out in TAG Unit M4.1 Forecasting and Uncertainty, with an uncertainty log used to identify committed development in the model area. The level of traffic growth has been constrained to those national forecasts outlined in the latest version of the National Trip End Model (NTEM, version 7.2) for car trips and the latest National Road Traffic Forecasts (RTF) for LGV and HGV trips, at the time the modelling was undertaken.

Public Transport (Bus) User Impacts

Demand flows for a future year of 2030 were derived with reference to NTEM growth factors, taking into account the following local developments.

- Harrogate Convention Centre
- Dragon Road Car Park
- Victoria Car Park
- Station Parade Car Park
- Harrogate Rail Station Short Stay Car Park
- Crescent Gardens

Trip generation from the above developments were loaded onto the network and relevant model zones and appropriate discounting of background growth was applied to ensure a more accurate forecast. This represented a 15% growth in overall public transport (bus) trips during the modelled peak hours for the 2030 forecast year.

Active Mode Users (walking and cycling)

In line with TAG Unit A5.1, the DfT's AMAT (May 2024) has been used to estimate the benefits associated with improved walking and cycling infrastructure and facilities. To estimate the benefits the tool requires inputs in terms of current and anticipated demand as well as the change in infrastructure provision. This is combined with assumptions from the National Travel Survey (NTS)

regarding journey length, speeds, journey purpose and cycling diversion factors, the tool generates outputs with regard to the scheme costs and benefits.

The AMAT allows current infrastructure for the route to be selected and proposed new infrastructure to be input. The AMAT User Guidance (May 2022) provides illustrative examples of different walking and cycling infrastructure types that have been used to inform the inputs for the 'before' (Do Minimum) and 'after' (Do Something) state. Detailed design drawings have also been considered to categorise new infrastructure for the purposes of the AMAT and economic appraisal. The full list of assumptions used in the active mode appraisal are provided in section 4.3.1.

Forecasts of future cycle journeys attributed to the Harrogate Station Gateway scheme are based on the comparative study approach outlined in the TAG Unit A5.1. Evaluation evidence from the following projects has been used to assess the extent of scheme induced demand for cycling.

- Evaluation evidence from the Cycling City and Towns Programme
- Evaluation evidence from Cycling Demonstration Towns Programme
- Summary and synthesis of evidence: Cycle City Ambition Programme 2013 to 2018

Evidence from the Cycling City and Towns Programme observed an average demand uplift for cycling of 24%, based on counts between 2007 and 2011, across 12 towns and cities across England. Further evaluation evidence from the Cycling Demonstration Towns initiative also found a 29% increase in cycling based on counts between 2005 and 2011 for Aylesbury, Brighton and Hove, Darlington, Derby, Exeter and Lancaster and Morecambe.

On the basis of this monitoring and evaluation evidence, the forecast increase in cycling demand in the with scheme scenario has been assigned at 26.5%, which is the average demand uplift of between 24% and 29%, documented across the Cycling City and Towns Programme and the Cycling Demonstration Towns Initiative.

The Core scenario also assumes a 20% increase in pedestrian numbers and is based on the comparative study approach, using evaluation evidence from the Living Streets publication, the Pedestrian Pound.

Rail User Benefits

Assessing the impacts of the improvements in the access/egress has been based on the guidance from the Passenger Demand Forecasting Handbook (PDFH v6.0). Section B9.4 of PDFH advises on the treatment of station access in modelling rail demand response. It advises that extended GJTs need to be constructed that take into account the access and egress time. To enter the extended GJT equation, the access and egress need to be weighted by an appropriate penalty, 2.0 in the case of walk/cycle access.

To identify the proportion of station users benefitting from the proposed improvements, 2017 survey data has been used to identify clusters of users accessing the station by each entrance point. Only a portion of users accessing the station and using the proposed scheme have been taken into account, hence, it has not been assumed that the access benefit will accrue to all station users.

The change in access time is then evaluated in terms of the change in the extended GJT (that includes access). However, it is then related to the base GJT (excluding access time) because this is the quantity that the GJT elasticities were measured for. In more technical terms:

T_{base} and T_{new} are the extended GJT times that include access and egress time for DM and DS.

The demand response can then be calculated using the following index:

$$I_j = \left[1 + \left(\frac{T_{new} - T_{base}}{GJT_{base}}\right)\right]^g$$

Where GJT_{base} is the DM GJT without access and egress and g is the relevant GJT elasticity from section B4.5 of PDFH. Standard rail appraisal is then conducted to monetise the change in rail demand, with the impacts including rail revenue and indirect tax as well as Marginal External Costs (MECs).

This approach has been used to quantify the rail demand response to the changes in active mode infrastructure that leads to improved station access (as reflected in the lower GJT). The monetised per trip benefits from AMAT and ABC tool are converted from pence per trip to GJT minutes based on VoT estimates from the latest version of the TAG Databook at the time of the appraisal (May 2024).

The demand uplifts are calculated at OD level based on the MOIRA ticket sales and GJT data. The May 2019 version of MOIRA has been used, hence various assumptions have been used to account for the exogenous changes in demand levels since 2019 and forecast the future background growth as described in Table 4-12. The role of the background growth is to take into account any future changes in rail demand that are unrelated to the scheme while allowing the per capita impacts to remain constant.

Table 4-12: Exogenous Growth Assumptions

Step	Description
Between 2019 and 2024	ORR station usage data for Harrogate used to adjust the background changes in demand between the MOIRA year and the year that most recent station usage data has been published for.
First 20 years	An elasticity-based approach has been used, as recommended in TAG unit A5.3 and TAG Unit M4, section 8. This approach takes into account the background (exogenous) changes to rail demand that are caused by factors assumed to be outside the direct control of the rail industry. These include factors such as employment and population changes, GDP growth and fare levels.
After 20 years	As noted in TAG unit A5.3, the approach that uses elasticities from PDFH is based on elasticities that been derived from outturn data for approximately the past twenty years and are therefore only recommended for use over a similar period into the future. Hence, in line with the guidance, the elasticity-based approach has been used for the first 20 years. Beyond this

	point, and for the remainder of the appraisal period, the impacts associated with the level of demand have been extrapolated in line with projected population growth (applied to all ticket types and journey purposes), in line with the advice in TAG A5.3 (section 2.3). Sensitivity tests have been conducted with a shorter and longer period (first 10 and 30 years) when the elasticity-based approach is used for the rail demand growth.

4.3.3 How has the impact of the scheme on travel demand and behaviour been incorporated?

Highways

User impacts, which include time savings, fuel-related Vehicle Operating Costs (VOC), non-fuel VOC and operator and Government revenues typically form the main part of benefits attributable to highway schemes. Demand, path-weighted average time, distance matrix skims from the Do Minimum and each Do Something option for the modelled year are input into TUBA generating the following economic outputs:

- Time savings
- Vehicle Operating Costs (VOC) savings
- Greenhouse gases
- Indirect taxes.

Any benefits during weekends and Bank Holidays are excluded from the assessment which is advised in TAG in the absence of a weekend-specific model. Further to this, the Interpeak is also excluded due to the lack of an available model. Table 4-13 shows the TUBA scheme parameters.

Table 4-13: Scheme Parameters

Parameter	Option
TUBA Version	1.9.23
First Forecast Year	2024
Design Year	2039

Annualisation factors were created using local count data. The modelled hour was converted into the peak period using this count data and then multiplied by 253, the number of working days in a year to calculate the annualisation factor. Due to the proximity of the two junctions the same annualisation factors were used. These are presented in the below table.

Table 4-14: Annualisation factors

Period	Annualisation Factor
AM	702
PM	722

In accordance with TAG, TUBA benefits are assessed by disaggregation to vehicle type and journey purposes. Five user classes are defined in the TUBA standard economic file, representing trips purposes for car, two for Light Goods Vehicles (LGVs) and two for Heavy Goods Vehicles (HGVs):

- Car – All purposes
- LGV – Personal
- LGV – Freight
- OGV 1
- OGV 2.

An all-purpose car user class has been used as LinSig does not have distinct user classes for Commuting, Business and Other. However, this purpose is split using TAG standard splits within the economic file. Further to this the Light Goods Vehicle data has been split using the TAG standard split between personal and freight use of LGVs. While Heavy Goods Vehicles have been split into OGV1 and OGV2 using the local count data.

Active Modes (Walking and Cycling)

The AMAT and ABC tools estimate the change in demand from changes in travel behaviour. This is inherent in the benefits that are incumbent on the level of mode shift from the imposition of improved walking and cycling infrastructure that affect the extent of modal shift from private car to walking and cycling.

Diversion factors have also been used to calculate the modal shift from cars to active modes and are included in the default assumptions applied within the AMAT.

Rail

The premise behind the Rail Access Model (RAM) is to estimate the demand response from changes in access to Harrogate rail station, via active modes (walking and cycling). The model uses generalised journey time elasticities from PDFH v6.0, which are adjusted to take account of GJTs, comparing the with and without scheme scenario.

The demand response in terms of modal shift to rail from improved access to the station has been estimated through the use of an elasticity-based spreadsheet model. The baseline combines the demand and revenue with the elasticity and car diversion assumptions as well as access assumptions (extracted from 2017 Station Survey evidence) to set out the Do Minimum scenario.

The DM GJTs are adjusted for accessibility with cycle access time input. The change in GJT is calculated based on the conversion from the monetary per trip benefit – that utilises outputs from the AMAT and ABC tool – converted into GJT minutes, multiplied by 2 to reflect the access penalty. The rail demand uplift is calculated by flow adjusted for the change in GJT and the relevant GJT elasticity. This allows the application of demand growth between the 2019 MOIRA year and any future year, as required.

4.3.4 What methodologies have been used to calculate the Monetised Benefits?

The approach to determining the monetised benefits of the scheme was developed in line with TAG principles and values. This has therefore been developed in line with TAG May 2024 TAG Databook values. The key appraisal assumptions applied to all monetised benefits are set out below.

- An appraisal period of 60 years applied to the future stream of benefits expected for highway users, rail users, pedestrians and cyclists.
- Full scheme opening by Spring 2027.
- Rebasing to the 2010 base year.
- Discounting to a 2010 base year. Discounting at 3.5% per annum for 30 years from the current appraisal year (2024) and then at 3% per annum over a 60-year appraisal period from the scheme opening year (2027).
- Converting to market prices. The Economic Case requires the conversion of any factor prices to market prices (using a factor for the average rate of indirect taxation in the economy of 19%). This is applied as appropriate, where any benefits estimated are expressed in the factor prices unit of account.

Monetised benefits of the Harrogate Station Gateway Improvement scheme have been estimated using the following methodologies.

Highway User Impacts

Two separate LinSig models have been developed and the journey time benefits and/or disbenefits captured through the use of Transport User Benefits Appraisal (TUBA) software.

Table 4-15: Highway User Impacts – Benefits / Disbenefits

Economic Benefit	£ (2010, PV)
Journey times (Business)	-£1,181,795
Journey times (Commuting)	-£1,730,275
Journey times (Other)	-£1,135,435
Vehicle Operating Costs (Business)	-£114,821
Vehicle Operating Costs (Commuting)	-£19,326
Vehicle Operating Costs (Other)	-£31,324
Indirect Tax	£25,031
Total	**-£4,202,112**
Greenhouse Gases (user emissions)	-£19,175
Greenhouse Gases (embodied carbon)	-£100,306

Total (with Carbon)	**-£4,321,592**

The outputs from the LinSig junction models, in terms of journey time disbenefits, have been monetised using TUBA for the AM and PM peak periods. Table A 1 and Table A 2 show that the actual impacts of the scheme on general traffic delay per PCU (in seconds) are forecast to be minor. It can also be seen from the below results, that small, localised improvements to journey times on the approach to Junction 1 are slightly outweighed by the increases in journey times at Junction 4 leading to an overall, small disbenefit for general traffic.

Table A 1 - Site 1 Journey time results

Site 1 Approach	2024 AM (seconds per PCU)			2024 PM (seconds per PCU)		
	Without Scheme	With Scheme	Change	Without Scheme	With Scheme	Change
Cheltenham Parade	46	37	-9	36	31	-5
Station Parade North	52	42	-10	50	44	-6

Table A 2 - Site 4 Journey time results

Site 4 Approach	2024 AM (seconds per PCU)			2024 PM (seconds per PCU)		
	Without Scheme	With Scheme	Change	Without Scheme	With Scheme	Change
Station Parade	28	62	+34	23	46	+23
Station Bridge	34	62	+28	38	58	+20

Rail User Benefits

A Rail Access Model (RAM) has been developed that measures the responsiveness of rail passenger demand to a change in access via walking and cycling. Marginal External Costs (MECs) from mode switch is captured for rail, showing the indirect benefits from scheme implementation in terms of (de)congestion, accidents, air quality, noise and GHG emissions. There are also expected to be some impacts in terms of indirect taxation (fuel duty to the Exchequer) and infrastructure savings from less damage to road surfaces due to fewer vehicle kilometres travelled.

Table 4-16: Rail User Impacts – Benefits

Economic Benefit	£ (2010, PV)
Rail Revenue*	£965,237

* Applied as a negative cost

Table 4-17: Rail User Benefits – Marginal External Costs

Economic Benefit	£ (2010, PV)
Congestion	£518,769
Accident	£86,998
Local Air Quality	£2,539
Noise	£5,800
Greenhouse Gases	£33,384
Indirect Taxation	£6,046
TOTAL MEC	**£653,537**
Infrastructure *	£2,501

* Applied as a negative cost

Public Realm Benefits

TfL's Ambience Benefits Calculator (ABC) Tool has been used to estimate the benefits of changes to physical attributes and public realm.

Table 4-18: Active mode journey quality benefits (ABC Tool)

Economic Benefit	£ (2010, PV)
User Benefits (journey quality)	£1,780,433

Active Mode (Walking and Cycling) Benefits

The version of the AMAT that has been used for the assessment of active mode (Walking and Cycling) benefits is May 2024.

Table 4-19: Active Mode Benefits

Economic Benefit	£ (2010, PV)
Congestion benefit	£284,994
Accident	£47,797
Local Air Quality	£1,394
Noise	£3,186
Greenhouse Gases	£18,307
Reduced risk of premature death	£4,749,773
Absenteeism	£1,255,802
Journey Ambience (New and Existing Users)	£1,572,384
Indirect Taxation	£3,352
Infrastructure*	£1,374
Total	**£7,936,990**

* Applied as a negative cost

Present Value Benefits (PVB)

The Present Value Benefits (PVB) have been calculated based on the established monetised impacts of the scheme. This includes the scheme impact in terms of changes to journey times, vehicle operating costs (VOCs), indirect tax, GHG emissions (carbon), accidents, noise and air quality, physical activity and journey quality.

Table 4-20: Summary of Monetised Benefits

Ref	Economic Benefit	£ (2010, PV)
A	Total Highway Time Benefits (TUBA)	-£4,047,504

B	Total Decongestion Benefits (AMAT & RAM)	£803,764
C = A + B	**Total Highway Time Benefits (TUBA, AMAT & RAM))**	**-£3,243,741**
D	Total Vehicle Operating Costs (TUBA)	-£179,638
E	Total Carbon (User Emissions and Embodied Carbon)	-£118,499
F	Total User Emissions (AMAT & RAM)	£51,691
G	Total Accidents (AMAT & RAM)	£134,795
H	Total Noise (AMAT & RAM)	£8,986
I	Total Air Quality (AMAT & RAM)	£3,933
J	Physical Activity (AMAT)	£6,005,576
K	Journey Quality (AMAT & ABC)	£3,352,817
L	Total Indirect Tax (TUBA, AMAT & RAM)	-£134,591
	Total (PVB)	**£5,881,329**

4.3.5 What methodologies has been used to calculate Monetised Costs?

Capital Costs

Scheme capital costs (construction, design and management) are estimated, based on a Bill of Quantities (BoQs) provided in nominal prices. To convert these costs to Present Value Costs (PVCs) for the economic appraisal, adjustments have been made, following the process set out in section 4.3.1 to derive the capital costs in 2010 prices, discounted to 2010 and expressed in market prices.

The scheme capital or investment costs for the Harrogate Station Gateway Improvement Scheme have been estimated at approximately £11.76m (nominal prices). The costs in Table 4-16 have been profiled across the project development and delivery period to account for the 18-month construction period. Only the costs which are incurred after the 2024/25 financial year have been included, with sunk costs, representing expenditure prior to scheme appraisal (that cannot be retrieved) excluded.

Guidance suggests that if the preferred tenderer's price is available, there is no requirement for a percentage addition for contingency, however, a small adjustment to costs has been included at just over 1% of delivery costs. A suitable risk allowance (based on a detailed QRA) has also been included in the scheme costs. This takes account of construction risks, but also other risks that may arise from unexpected delays or cost increases.

A detailed breakdown of capital costs by calendar year is provided in Table 4-21.

Table 4-21: Scheme capital costs by year (£)

Component	Description	Cost by calendar year (£)			Total
		2025	2026	2027	
Delivery	Direct and Indirect Construction Costs	£1,717,739	£6,527,536	£1,984,985	**£10,230,260**
Project Development	Design and ongoing development of the scheme	£173,008	£57,669	£0	**£230,677**
Benefits Realisation Reporting	Non-capital expenditure on monitoring and evaluation	£0	£7,500	£2,500	**£10,000**
Contingency	Separate from risk to account for minor items that have not been measured or priced.	£0	£89,349	£29,783	**£119,131**
Risk	QRA (P80)	£88,099	£334,782	£101,805	**£524,686**
Inflation	Future inflation from BCIS applied at 3.5% per annum.	£60,121	£444,182	£141,381	**£645,683**
Land & Enabling Works		£0	£0	£0	£0
Total	**Total scheme costs (Nominal, w/inflation)**	**£2,038,967**	**£7,461,017**	**£2,260,454**	**£11,760,438**

The present value costs (PVC) of the scheme over a 60-year appraisal period have been estimated at £5.59m (2010, PV). The process for deriving the PVCs of the scheme is presented in Table 4-22.

Table 4-22: Present Value Costs (PVC) – Capital Expenditure

Cost Breakdown	

Base Costs (Nominal prices)	£11,760,438
Adjusting Price Base (2010 prices)	£8,144,267
Apply discounting	£4,695,852
Adjusting to Market Prices @1.19	£5,588,063
Total (PVC)	**£5,588,063**

Operating, Maintenance and Renewal Costs

Costs related to the ongoing operation, maintenance and renewal of infrastructure have been estimated. This is based on assumptions to derive these costs in proportion to the capital costs associated with the scheme.

The combined total 'regular' maintenance and renewal costs have been calculated based on an assumption of an annual contribution of 0.1% of base construction costs, excluding preliminaries, earthworks and site clearance. This is equivalent to an annual regular maintenance and renewal cost of £5,744.

The annual maintenance cost is primarily driven by general inspection activities, and it is assumed that this will be quite modest as there are expected to be some maintenance cost savings for the pieces of infrastructure that are renewed or improved. An annual maintenance cost has been assumed to amount to £1,000 per annum across the whole appraisal period.

The remaining costs have been assumed to be related to scheduled renewals of the proposed infrastructure. These costs have been distributed across the appraisal period using an assumed spend profile.

Table 4-23: Regular renewal costs time profile

	Year 15 (2041)	Year 20 (2046)	Year 30 (2056)	Year 40 (2066)	Year 45 (2071)	Total
% of total renewal costs	5%	40%	10%	40%	5%	100%
£, 2024 prices	£13,944	£111,549	£27,887	£111,549	£13,944	£278,872

Additionally, to take into account the shorter asset life of some of the public realm and active mode infrastructure, end-of-life asset renewal costs have been accounted for in the appraisal to provide a single appraisal period (i.e. 60 years) to appraise the impacts of all the scheme components. These have been represented by an additional 10% of base construction costs in years 20 and 40.

Table 4-24: End-of-life asset renewal costs	
Year	**£m, 2024 prices**
Year 20 (2046)	£574,359
Year 40 (2066)	£574,359

Within the appraisal, it has been assumed that renewal cost are subject to inflation above the levels of general inflation in the economy, hence these costs have been inflated using the GDP deflator +2.1% per annum. Table 4-25 shows all the adjustments to the cost estimates to derive the total OMR Present Value Cost (PVC) for the scheme at approximately £0.51m (2010, PV). All maintenance and renewal costs are expected to be met by the local authority, NYC.

Table 4-25: Total OMR Costs with adjustments	
Year	**£m, 2024 prices**
Total OMR costs (2024 prices)	£1,826,460
Total OMR costs (nominal prices)	£6,175,636
Total OMR Costs (2010 prices)	£2,033,431
Total OMR Costs (2010, PV)	£426,508
Total OMR Costs (2010 PV, market prices)	**£507,544**

Present Value Costs (PVC)

An estimate of capital and whole life costs including maintenance and renewals is included in the derivation of Present Value Costs (PVCs). The PVC is £5,588,063 (2010, PV) which accounts for the capital expenditure, plus the ongoing maintenance and renewal costs associated with the scheme, estimated at £507,544 (2010, PV).

There are some impacts attributed to the scheme that are applied as a 'negative cost', which are taken off the PVC, in line with DfT guidance. These impacts include infrastructure savings from reduced maintenance of the road network that arise from a reduction in vehicle kilometres and modal shift to active modes. Another impact is the revenue generated from an increase in rail demand that is calculated in the RAM and reflects the improved journey quality and access to Harrogate Rail Station from enhancements to public realm and journey ambience.

Table 4-26 shows how the PVC for the scheme has been derived, with all costs (including negative costs) expressed in 2010 prices and discounted to 2010 over a 60-year appraisal period.

Table 4-27: Present Value Costs (PVC)

Cost Breakdown	£ (2010, PV)
Capital costs	£5,588,063
OMR Costs	£507,544
Infrastructure savings (AMAT)	-£1,374
Infrastructure savings (RAM)	-£2,501
Rail Revenue	-£965,237
Total (PVC)	**£5,126,497**

4.3.7 How is uncertainty in the appraisal dealt with?

Given the uncertainty in the estimation of all impacts, it is important to undertake appropriate and proportionate sensitivity analysis. A number of sensitivity tests have been conducted to reflect uncertainty in input assumptions. These tests have been run in relation to overall scheme costs and benefits, using switching analysis, as well as individual tests to establish the sensitivity of expected outcomes to changes in inputs and the potential future uncertainty with regard to travel behaviour.

Switching Value Analysis

A switching values analysis is conducted to understand the extent that the current PVB and PVC would need to increase or decrease to generate a BCR of 1.0 (Low), 1.5 (Medium VfM) and 2.0 (High VfM).

Table 4-28: Switching Value Analysis (£)

BCR	Target PVB	Current PVB	PVB % Change	Target PVC	Current PVC	PVC % Change
1.0	5,126,497	5,881,329	-13%	5,880,348	£5,126,497	+15%
1.5	7,689,745	5,881,329	+31%	3,920,886	£5,126,497	-24%
2.0	10,252,994	5,881,329	+74%	2,940,664	£5,126,497	-43%

Table 4-28 shows that the PVB would need to decrease by 13% or the PVC increase by 15% to retain the Low VfM category. To secure a Medium VfM rating the PVB would need to increase by 31% or the PVC decrease by 24% to a target of approximately £3.92m (2010, PV). Based on the small likelihood that this increase in costs or decrease in benefits will materialise on this scale, it is anticipated that the VfM of the scheme will most likely remain in the Low VfM range.

Sensitivity Analysis

DfT guidance recommends the use of sensitivity analysis to assess uncertainty in appraisal inputs and outputs. This is based on key uncertainties, including future projections in traffic growth (based on NTEM national traffic growth projections) and the scale of scheme induced demand uplift for walking and cycling. In line with TAG Unit A5.3, the rail demand cap is adjusted to ten and thirty years after the appraisal year to test the impact of changing the period over which the exogenous relationships are assumed to hold to establish the potential impact on costs, benefits and rail revenue. Further sensitivity tests that adjust the appraisal period for the economic appraisal are run to reflect the future design life of infrastructure. Scheme costs are also included in the uncertainty analysis to establish the impact on scheme VfM from cost escalation.

- Test 1: High Traffic Growth in line with DfT TAG M4
- Test 2: Low Traffic Growth in line with DfT TAG M4
- Test 3: Excluding the highway impacts
- Test 4: Rail demand cap at 10 years
- Test 5: Rail demand cap at 30 years
- Test 6: Willingness to Pay (WTP) values per pedestrian trip are reduced by 50%
- Test 7: DfT ATF4 uplift tool for cycling and walking
- Test 8: 25% increase in scheme total cost
- Test 9: 50% increase in scheme total cost
- Test 10: 20-year appraisal period
- Test 11: 40-year appraisal period

Test 1 & 2: High and low traffic growth in the modelled scenarios

TAG Unit M4 outlines the methodology for defining the high and low traffic growth scenarios to account for national uncertainty in future traffic demand. This involves adding and subtracting a proportion of the base demand from the Core scenario. Table 4-29 shows the effect on the PVB from adjusting the base traffic demand in the high and low traffic growth scenario. With greater, exogenous growth assumed in the national traffic growth projections, the highway disbenefits are likely to increase and with lower traffic growth the negative impacts on highway user journey times are reduced.

Table 4-29: Highway User Benefit Sensitivity Test, £, (2010 PV)

	Core Scenario	High Traffic Growth	Low Traffic Growth
PVB	5,881,329	3,195	6,526,767
PVC	£5,126,497	£5,126,497	£5,126,497
NPV	754,832	-5,123,302	1,400,270
BCR	**1.2**	**0.0**	**1.3**

Test 3: Exclusion of Highway Impacts

This test involves removing the highway user impacts from the economic appraisal to assess the active mode and sustainable mode benefits on their own merit. Table 4-30 shows the effect on the PVB using assumptions that exclude the highway impacts from scheme implementation.

Table 4-30: Exclusion of Highway Impacts Sensitivity Test, £, (2010 PV)

	Core Scenario	Excluding Highway User Impacts
PVB	5,881,329	10,083,441
PVC	£5,126,497	£5,126,497
NPV	754,832	4,956,944
BCR	**1.2**	**2.0**

Test 4 and Test 5: Rail Demand Cap at 10 and 30 years

In the Core scenario, the background rail demand growth is based on the exogenous growth profile calculated using the approach set out in PDFH that, in line with guidance, is used for 20 years with population growth applied thereafter. To test the impact of this assumption on the level of benefits monetised within the RAM, two alternative scenarios have been tested with the PDFH elasticity-based exogenous growth reverting to population growth after 10 and 30 years. The impact of this change is relatively minor and does not affect the VfM category of the scheme.

Table 4-31: Rail Demand Cap at 10- and 30-Years Sensitivity Test, £ (2010 PV)

	Core Scenario	Rail demand cap at 10 years	Rail demand Cap at 30 years
PVB	5,881,329	5,873,583	5,876,861
PVC	£5,126,497	5,175,846	5,073,257
NPV	754,832	697,737	803,603
BCR	**1.2**	**1.1**	**1.2**

Test 6: WTP values per pedestrian trip are reduced by 50%

This test assesses the impact of a 50% reduction in the per trip WTP values from the journey ambience impacts estimated in the ABC tool. This change affects the rail and active mode benefits.

Table 4-32: WTP values per pedestrian trip reduced by 50% Sensitivity Test, £, (2010 PV)

	Core Scenario	WTP values per pedestrian trip reduced by 50%

PVB	5,881,329	4,748,878
PVC	£5,126,497	5,610,312
NPV	754,832	-861,434
BCR	**1.2**	**0.9**

Test 7: DfT ATF4 uplift tool for cycling and walking

Uncertainty analysis has been conducted by adjusting the scheme induced demand uplift associated with scheme implementation. This sensitivity test assumes a higher and lower uptake of walking and cycling following upgrades to active mode infrastructure. The evidence is derived using the DfT ATF4 Uplift and Cost Benchmarking Tool, where cycling shows a 91% increase and pedestrian activity increases by 12%, compared to a core demand uplift of 26.5% for cycling and walking, using the comparative study approach to scheme induced demand.

Table 4-33: DfT ATF4 Uplift Tool for Cycling and Walking Sensitivity Test, £, (2010 PV)

	Core Scenario	DfT ATF4 Uplift Tool
PVB	5,881,329	4,962,958
PVC	£5,126,497	5,126,383
NPV	754,832	-163,425
BCR	**1.2**	**1.0**

Test 8 and 9: 25% or 50% Increase in Capital Costs

Sensitivity testing around scheme costs has been undertaken to show the impact on the scheme VfM from an increase in scheme costs of 25% and 50%, respectively.

Table 4-34: Scheme Costs Sensitivity Test, £ (2010 PV)

	Core Scenario	25% increase in Capital Costs	50% Increase in Capital Costs
PVB	5,881,329	5,881,329	5,881,329
PVC	£5,126,497	6,523,513	7,920,529
NPV	754,832	-642,184	-2,039,200
BCR	**1.2**	**0.9**	**0.7**

Test 10 and Test 11: Appraisal periods

The appraisal period documents the number of years over which benefits are assumed to occur. The DfT Active Mode appraisal User Guide (May 2022) suggests that some (active mode) infrastructure schemes may be justified in adopting a longer appraisal period (up to a maximum of 60 years), if they are considered to have a comparable design life comparable to major roads and rail capacity improvements.

The Core scenario for the active mode appraisal has assumed a 60-year appraisal period to reflect the useful lifetime of the asset(s). This has been assumed on the basis of the delivery of high-quality walking and cycling infrastructure that is compliant with LTN 1/20 guidance and Manual for Streets (MfS) and built to design standards that are comparable to highways. Sensitivity testing around different appraisal periods has been conducted, with 20-year and 40-year appraisal periods used.

Table 4-35 shows the results from the application of a 20-year and 40-year appraisal period for all modes, and the effect on the PVB, PVC and BCR.

Table 4-35: Appraisal Period Sensitivity Test, £ (2010 PV)

	Core Scenario (60-Year Appraisal)	20-Year Appraisal	40-year Appraisal
PVB	5,881,329	1,928,096	4,190,105
PVC	£5,126,497	5,349,496	5,283,589
NPV	754,832	-3,421,400	-1,093,484
BCR	**1.2**	**0.4**	**0.8**

Summary

The results of the sensitivity test analysis are presented in Table 4-36. The results show that adjusting individual parameters does have a significant effect on the VfM category for the scheme. From the results it is anticipated that the scheme's VfM category is likely to be Low.. The PVB is most sensitive to the high and low forecast traffic growth scenarios, the appraisal period applied for active modes and any increase in capital costs.

Table 4-36: Sensitivity Test Results, £ (2010, PV)

	PVB	PVC	NPV	Initial BCR	VfM Category

Core	5,881,329	£5,126,497	754,832	**1.2**	Low
Test 1	3,195	£5,126,497	-5,123,302	**0.0**	Poor
Test 2	6,526,767	£5,126,497	1,400,270	**1.3**	Low
Test 3	10,083,441	£5,126,497	4,956,944	**2.0**	High
Test 4	5,873,583	5,175,846	697,737	**1.1**	Low
Test 5	5,876,861	5,073,257	803,603	**1.2**	Low
Test 6	4,748,878	5,610,312	-861,434	**0.9**	Poor
Test 7	4,962,958	5,126,383	-163,425	**1.0**	Low
Test 8	5,881,329	6,523,513	-642,184	**0.9**	Poor
Test 9	5,881,329	7,920,529	-2,039,200	**0.7**	Poor
Test 10	1,928,096	5,349,496	-3,421,400	**0.4**	Poor
Test 11	4,190,105	5,283,589	-1,093,484	**0.8**	Poor

4.3.7 Are there any Wider Scheme Benefits?

Land Value Uplift

The proposed improvements will have an impact on land values associated with new developments in the surrounding area. This is because the station will be a gateway and focal point in the town with the potential to help facilitate the development of new housing and employment sites.

At the time of the OBC, prior to the descoping of the scheme, an assessment of the land value uplift was undertaken. Based on discussions with the Economic Development team at Harrogate Borough Council, a number of new housing, employment and mixed use regeneration sites were identified and DHULC's Appraisal Guide followed to estimate the value of the economic benefit.

The high-quality transport links were identified as integral to the development and had the support of the developers:

"Caddick Developments Ltd, as a landowner adjacent to the scheme and lead developer for the built form of the Station Gateway regeneration, fully support the emerging Transforming Cities Fund backed proposals.

In 2017 we, along with other stakeholders and landowners, developed and agreed a Masterplan for the site with a vision to:

Create a regionally significant, exemplar Gateway for Harrogate with outstanding public realm, high quality mixed-use development to meet the present and future needs of the Town Centre, and high-quality transport links at the forefront of sustainable travel planning coordinated between rail, bus, taxis, cars, cyclists and pedestrians.

The Masterplan should be ambitious and imaginative, but also will also focus on being fundable, both publicly and privately, to ensure it can be delivered and generate viable development opportunities, as well as catalyse further phases, without further delay to regeneration of a site which has blighted Harrogate for far too long.

Sustainable transport and public realm improvements are key to unlocking built development, that will bring much needed new homes and jobs to the town. The TCF scheme is, therefore, critical to facilitate future development of the area" (Lee Savage, Director of Development, Moda Living, 23rd February 2021).

Based on land value uplift methodology and additionality guidance, the land value gain from unlocked housing was calculated. Using a land value uplift and additionality model developed by WSP, total land value gain across the 280 units at the seven housing sites adjacent to the station was estimated at c.**£8.9 million (2010 prices, present value and market prices, as per DfT guidance)**.

Given the descoping of the scheme, it is no longer anticipated that the value of land value uplift will be so great as previously estimated. However, the scheme will still deliver an improved experience for those walking, cycling and using the bus and rail stations, and interchanging between sustainable modes. This will increase the attractiveness of residential and commercial developments in the vicinity of the scheme, demonstrating the wider benefits it will bring to the local economy.

4.3.8 Are there any Low Carbon and Environmental Scheme Benefits?

As outlined within the objectives to "increase levels of walking and cycling" and contribute to "reducing carbon emissions through a shift to sustainable modes of travel", the scheme supports the ambition to decarbonise transport and improve localised environmental benefits.

The carbon appraisal for the Harrogate TCF scheme estimates a total net carbon increase of (+)1,044 tCO_2 emissions over the 60-year appraisal period. The Carbon Zero Summary Report highlights that this impact is predominantly attributed to the infrastructure carbon, also known as embodied carbon, associated with the scheme's construction and ongoing maintenance. Table 4-37 presents a breakdown of the carbon appraisal results from the analysis.

Table 4-37: Whole-life carbon impacts

Element	Description	Carbon Impact (tCO_2e)
User emissions	Use of TUBA outputs given minimal changes and limitations of local junction models to capture re-routeing.	(+) 426
User emissions	Conversion of vehicle kilometre outputs from the AMAT and RAM have been processed through	(-) 185

	bespoke modelling, using TAG datasets (May 2024) and emission factors to convert vehicle kilometre savings into tCO_2 emissions.	
Total user emissions	**Total user emissions (tCO_2) over the 60-year appraisal period.**	**(+) 241**
Infrastructure Carbon	Project and construction-stage capital carbon, repair and replacement, deconstruction, waste transport, recovery and disposal	(+) 808
Removals	Tree planting and landscaping	(-) 4.9
Total net impact	**Total whole life carbon impacts over 60 years (plus one year for construction) years**	**(+) 1,044**

User Emissions

Table 4-32 shows that the scheme is projected to result in an increase in total user emissions of (+)241 tCO2e over the 60-year appraisal period. This means the scheme is estimated to lead to an overall carbon disbenefit (i.e. increase in carbon emissions). The estimate of net impact reflects a combination of factors, including carbon disbenefits from changes in general traffic flows (as modelled by LinSiG) and the carbon savings driven by an increased shift towards active travel modes, calculated using the AMAT and RAM.

Whilst the scheme promotes modal shift, the estimated emissions associated with modelled changes to general traffic flows outweigh the forecast benefits from the shift to active modes. However, in the context of total surface transport emissions in Harrogate this impact is negligible (approximately 0.2% annual increase on 2022 levels for North Yorkshire). The increase in carbon emissions can largely be linked to modelled changes in vehicle speeds, more stop- and-start movements, and reduced vehicle efficiency at junctions – effects anticipated from the road space reallocation to incorporate the active travel features such as the segregated cycle lane and bus lane on Station Parade.

Regarding modal shift, the AMAT and RAM forecasts indicate a reduction of approximately (-) 3,263,348 vehicle kilometres (vkm) on the road network within the scheme area over the 60-year appraisal period. This reduction corresponds to a decrease of around (-) 184 tCO_2 in carbon emissions. This forecasting of modal shift and associated carbon savings only considers the impact of the scheme in isolation. It does not capture the potentially greater levels of modal shift and carbon saving that this scheme could enable in combination with any future connecting sustainable transport schemes or policies that enable and encourage modal shift.

In summary, an increase in modal shift to active travel is expected in Harrogate as a result of the scheme, however, these carbon savings do not outweigh the increase in emissions associated with changes to general traffic. This impact is negligible, when considered in the context of total

transport emissions for Harrogate and wider North Yorkshire. Despite this, active travel and public transport improvements will play a role in providing alternatives to private vehicle use which could, in combination with wider network improvements and policies, deliver a larger behavioural change and carbon saving than estimated in this assessment.

The emissions impact is mostly associated with the capital carbon emissions from the manufacture of materials, transport to site, construction activities and maintenance of the proposed scheme once in operation.

Infrastructure (Embodied) Carbon

TAG Unit A3 states that appraisal should consider all greenhouse gas emissions, including those resulting from the production of materials, also referred to as capital carbon and/or embodied carbon. Total infrastructure carbon from the scheme includes all GHG emissions associated with project and construction, repair and maintenance, deconstruction, waste transport, recovery and disposal. The estimated carbon impact is (+) 808 tCO_2e. The following principles have been incorporated into the Carbon Management Plan (CMP) to minimise carbon through the design and construction:

- Where possible, kerb lines have been retained for re-use.
- Existing street furniture such as signage will be reused.
- Re-designed reducing the width of the sub-base in footway and carriageway to avoid material use and associated carbon.
- Incorporated SUDs into the urban realm design as an intervention for carbon sequestration and climate resilience.

Environmental Impact Appraisal

Further evidence of the wider environmental scheme benefits can be found in the table below.

Table 4-38: Environmental Appraisal Summary

Impact	Summary of Key Impacts	7 Point Scale
Noise	Although the scheme encourages modal shift from private vehicles to more sustainable modes of transport (walking and cycling), any potential noise benefits as a result of this are likely to be slight in the context of the wider noise environment. As such, improvements in overall associated traffic noise are not expected to be a key benefit of the scheme and are dependent on the extent of modal shift to active modes and changes in travel behaviour.	NA (Quantified)
Air quality	During operation it is expected that there would be a minor beneficial impact to air quality from modal shift towards more sustainable modes of transport (walking, cycling and rail). However, given the existing concentrations of air pollutants are below UK limits, any potential change in traffic flows is unlikely to lead to a significant change in air quality.	NA (Quantified)

Greenhouse gases	There are expected to be small changes to greenhouse gas emissions related to end-user vehicle emissions associated with general traffic volumes and speeds and modal-shift to active modes.	NA (Quantified)
Landscape	Due to the location of the scheme, it is considered that the nature of impacts relates to townscape only and that no effects on the wider landscape of Harrogate district will occur.	Neutral
Townscape	Improved public realm, provision of on-road segregated cycleways, pedestrian routes and crossing priority and the use of high-quality materials at Station Square and at the Station Gateway are likely to enhance the layout and operationally optimise the transport network in Harrogate town centre. Public realm improvements will also improve human interaction with the urban environment and a step-change in connectivity to Harrogate rail station will increase levels of walking and cycling in the local area.	Slight beneficial
Heritage	There are no direct impacts to heritage assets from scheme implementation. There is the potential for adverse impacts on the form and survival of the stone wall at the eastern entrance of One Arch and the loss of mature trees within the conservation area. Public realm improvements and a potential reduction in general traffic along Station Parade are likely to improve the context of listed buildings and features/setting of the conservation area.	Neutral
Biodiversity	There are no direct or indirect impacts on any statutory designated sites. There are expected to be some adverse impacts from habitat loss and disturbance, including that which has the potential to support bats within the One Arch underbridge. There are also expected to be loss of trees within the site boundary that have the potential to support nesting birds. Through mitigation and countermeasures, these impacts and any disturbance to surrounding habitats will be minimised.	Neutral
Water environment	The proposed scheme is within Flood Zone 1, associated with the River Nidd. Overall, the impact on the water environment from scheme implementation is expected to be neutral.	Neutral

4.3.9 How the scheme impacts across different social groups?

Social impacts consider the overall impact of the scheme on different societal indicators, while distributional impacts (DIs) consider the variance of impacts across different societal and vulnerable groups.

Social Impacts

Social impacts are particularly relevant to the Harrogate Station Gateway TCF scheme as several of the monetised benefits derived from the AMAT and RAM work feature in DfT's list of defined social impacts. Non-monetised impacts are presented on a seven-point scale of beneficial, neutral and adverse in the Appraisal Summary Table (AST). The key points under each of the social indicators appraised are summarised below.

Table 4-39: Social Appraisal Summary

Impact	Summary of Key Impacts	7 Point Scale
Accidents	Both the AMAT and RAM estimate the monetised impact on accidents from a reduction in vehicle kilometres from modal shift from private cars to active modes and rail.	NA (Quantified)
Physical Activity	A segregated, on road cycle path is being delivered as part of the scheme, providing a dedicated facility for cyclists that is segregated from general traffic along Station Parade. As such, the scheme is likely to support active modes of travel directly.	NA (Quantified)
Security	Improved security will be an important factor for those using the new facilities as the improved cycling and walking routes will feature improved lighting, signage and improved public realm, both along Station Parade and at Station Square, adjacent to Harrogate railway station.	Moderate beneficial
Severance	The scheme includes several crossing points along Station Parade, including one that directly links Station Square with Harrogate Railway Station. This will provide pedestrian priority that improves access to rail services and the surrounding area. There is also another improved crossing point along Station Parade that will improve pedestrian access to the nearby bus station and reduce barriers to pedestrians wishing to access key locations, businesses and amenities.	Moderate beneficial
Journey Quality	The scheme will lead to improvements in journey quality for both pedestrians and cyclists – those using active modes as their main modes as well as to access the rail station.	NA (Quantified)
Accessibility	Overall, the scheme is expected to deliver better access to the railway station and other surrounding amenities and local services in the vicinity. Better journey quality for walkers and cyclists is reflected in the increase in rail demand that can be directly attributed to the scheme.	Moderate beneficial
Personal Affordability	An improved walking and cycling network will offer far more opportunities for low-cost travel, benefitting particular groups such as those on low incomes. Greater priority for pedestrians and cyclists	Slight beneficial

	through the implementation of multiple crossing points along Station Parade and around the central rail and bus stations will also enhance opportunities for groups that do not own a car.	
Accidents	Both the AMAT and RAM estimate the monetised impact on accidents from a reduction in vehicle kilometres from modal shift from private cars to active modes and rail.	NA (Quantified)

Distributional Impact Appraisal

Distributional Impacts (DIs) cover the extent to which the impacts of transport interventions are distributed across different groups of people, including those from more vulnerable social groups who are more likely to be affected by both the positive and negative impacts of a transport scheme.

The Distributional Impact analysis is undertaken in line with TAG Unit A4.2 Distributional Impact Appraisal. The appraisal of DIs is split into three steps.

- Step 1 – Screening of the impacts considered in and out of scope
- Step 2 – Confirming the area impacted by the transport intervention and identification of social groups and amenities within that area.
- Step 3 – DI appraisal.

Based on the TAG Unit A4.2, there are eight potential DI impacts from scheme implementation.

- User Benefits.
- Noise
- Air quality
- Accidents
- Severance
- Security
- Accessibility and
- Personal Affordability.

The scheme has been assessed to have positive impacts across all categories, as indicated in Table 4-40, below.

Table 4-40 Distributional Impacts Appraisal

Item	Summary of Key Impacts	7 Point Scale
User Benefits	The majority of user benefits are distributed within income quintiles 3,4 and 5. The lowest income quintile (most deprived) is not disproportionately affected by the scheme, as the share of net benefits	Moderate Beneficial

	for this income group is broadly similar to their share of the population. Income quantile 3 (mid-point) and income quintile 5 (least deprived) account for a lower proportion of user benefits relative to their population in the impact area. On balance, the overall impact is moderate beneficial.	
Noise	Overall noise impacts are very small relative to the user benefits. The noise benefits are distributed across all income groups, with no income group disproportionately affected by increased noise or vibration attributed to the scheme. The overall impact is moderate beneficial.	Moderate Beneficial
Air Quality	Similar to the noise impacts, the total value of air quality impacts is relatively small. The air quality impacts from scheme implementation are mostly concentrated in income quintile 4 which accounts for 75% of total air quality impacts, but only accounts for 59% of the total population in the impact area. Low-income groups are not disproportionately affected by the scheme, in terms of air quality, and the benefits are distributed more or less equally across all income quintiles.	Moderate Beneficial
Accidents	Although there will be accident reduction benefits from a reduction in vehicle kilometres associated with modal shift to active modes, the distribution of these impacts is likely to be experienced by those in higher income groups.	Slight Beneficial
Security	The total number of pedestrians and cycle users per day is relatively small (under 900 users per day) compared to much larger schemes.	Slight Beneficial
Severance	The scheme introduces multiple crossing points along Station Parade, including a direct link between Station Square and Harrogate Rail Station, prioritising pedestrian access to rail services and the surrounding area. Additionally, an enhanced crossing along Station Parade will improve access to the nearby bus station, reducing barriers for pedestrians accessing key locations, businesses, and amenities. Despite current moderate barriers to pedestrian movement caused by traffic volumes and road layouts, the scheme is expected to alleviate some of these effects by providing greater pedestrian priority at junctions that serve the Harrogate rail and bus stations, as well as Station Square. The scheme is anticipated to have a moderate beneficial impact on reducing severance for these groups.	Moderate Beneficial
Accessibility	Illustrating the importance of good accessibility to the railway station, some 45,000 daily commuting trips are made, particularly to and from York and Leeds. There are also a number of centrally located current	Moderate Beneficial

	and future developments in Harrogate that are within walking or cycling distance of the station.	
Affordability	The relatively high running and maintenance costs associated with car ownership and use may not be a realistic option for all residents, particularly those in the low income LSOAs to the southeast of the town centre, whilst other vulnerable groups may not be able to drive due to age or disability. All of these groups will benefit from the enhanced low-cost travel options associated with the active mode improvements.	Slight Beneficial

4.3.10 What is the Value for Money position?

The initial BCR for the scheme based on the established monetised impacts is 1.2, with an initial NPV of £0.75m which represents Low VfM in the DfT classification. The main sources of benefits from the scheme are the health and journey quality benefits that reflect the increased uptake in active modes and the extent of modal shift from cars to walking and cycling modes of transport. There are also some modest benefits from the indirect effects of improvements to walking and cycling infrastructure and the impact on rail passenger demand.

There are slight benefits from the Marginal External Costs (MECs) appraisal of accidents, noise, air quality and GHG emissions that arise from changing travel behaviour and a reduction in vehicle kilometres from modal shift. However, these benefits are to a large extent outweighed by the highway user disbenefits, in terms of journey times for new and existing users. Additionally, the highway user disbenefits generate secondary impacts on net transport user emissions (CO_2 emissions), which are estimated to increase from scheme implementation. This is balanced against the extent of modal shift that is likely to take place, through improvements to walking and cycling infrastructure and subsequent effects on rail demand that combine to reduce the level of CO_2 emissions attributed to the scheme.

It is also noted that while the economic appraisal considers the potential negative impact related to increased journey times for highway users, the scheme will have moderate and positive impacts on active mode users. These improvements are also likely to generate benefits that have not been considered or monetised, such as increased well-being and mental health impacts as well as some slight beneficial impacts in terms of severance (reduction in barriers to pedestrian movement and priority at junctions), security, accessibility and personal affordability, as well as wider economic benefits. Further, the proposals support the TCF objectives.

Overall, the final VfM assessment for the scheme implied by the initial BCR of 1.2, consideration of switching values and sensitivity tests, non-monetised impacts and its contribution to policies and objectives suggests that Low VfM is the most likely outcome.

Table 4-41: Value for Money Assessment		
Present Value of Benefits (£)	A	5,881,329
Present Value of Costs (£)	B	5,126,497
'Initial' Net Present Value (£)	A-B	754,832
Initial Benefit to Cost Ratio	A/B	1.2
Value for Money Category	Initial BCR	Low
Present Value of Other Monetised Impacts	C	0
'Adjusted' Net Present Value (£k)	(A+C)-B	754,832
'Adjusted' Benefit to Cost Ratio	(A+C)/B	1.2
Value for Money Category	Adjusted BCR	Low

4.3.11 Preferred Option Selection and Justification

The latest detailed design of the Harrogate Station Gateway scheme represents a variation and evolution of the preferred option progressed through the Stage 3 business case submission (OBC stage). The redesign of the scheme at FBC stage reflects a scaling back of transport proposals and scope. Despite this, the preferred scheme option presents the best way forward, delivering maximum benefits to the people of Harrogate and retaining the core TCF station gateway focus, while aligning with scheme objectives and key stakeholder and public priorities.

This option has been taken forward for assessment as part of the FBC and the results of the economic appraisal have been presented. Overall, this option has an initial NPV of £0.75m (2010, PV) and an initial BCR of 1.2. As all benefits are categorised as Level 1 monetised impacts, there is no change for the adjusted BCR.

The Harrogate Station Gateway scheme package, as set out in Section 1.1 of the Strategic Case, comprises a series of public realm improvements and enhancements to walking and cycling routes that serve Harrogate town centre and the adjacent bus and rail stations.

The FBC demonstrates that the preferred option and package of infrastructure improvements is considered appropriate to achieve the agreed aims and objectives of the project. This is reflected by the following.

- Alignment to scheme objectives
- Detailed design following best practice guidance and having been developed in accordance with 'Green Streets' design principles, LTN 1/20, DMRB guidance and NYC design standards
- Scheme costs and feasibility of delivery

- Value for Money performance, with the level of benefit exceeding the cost of the scheme.

The scheme will also encourage inward investment in the local area via the improvement of sustainable travel options in and around Harrogate rail station. Linking the station to key development, employment and educational sites within a short walking or cycling distance will also encourage travel behaviour change and modal shift to active modes. The economic appraisal identifies that the most significant benefit from the scheme is derived from the increase in walking and cycling uptake and the associated health benefits for new and existing users from scheme implementation. Modal shift will be facilitated by improvements to active mode journey quality from investment in public realm. This will serve to complement the local area's historic roots and facilitate sustainable economic growth.

DfT appraisal guidance states that impacts on highway users should be accounted for and it is noted that there are slight disbenefits to highway users from scheme implementation. However, in light of national policy aimed towards decarbonising the economy and building resilience to climate change, discouraging short journeys by car or private motor vehicle on an already constrained network can act as a catalyst for behaviour change and modal shift to more sustainable modes of travel.

When considering the package of transport measures proposed as part of the scheme, there is a strong strategic and economic case for investment.

5. Financial Case

5.1 Capital Costs

5.1.1 What is the total project outturn capital cost?

Overview

The Financial Case provides evidence on the affordability of the scheme, how it is to be funded and any technical accounting issues. It includes the cost profile for the scheme and the impact of the proposed transport investment on budgets and accounts. The financial case includes the following elements.

- Estimates of the capital costs of the scheme, including project development, delivery and construction, adjusted for risk and inflation in future years. There are assumed to be no land take or enabling works required to bring forward the scheme.
- Cost profile showing year-on-year costs, and a breakdown by cost type and parties on whom they fall.
- Consideration of the financial sustainability of the scheme, including ongoing costs of operation, maintenance and renewals.

Direct Construction Costs

The anticipated final cost of the scheme has been informed by a detailed BoQs from the contractor, North Yorkshire (NY) Highways. Table 5-1 presents the breakdown of construction costs across different cost components.

Table 5-1: Construction Bill of Quantities (£, nominal)	
Cost Component	**Total**
Series 100: Preliminaries	£2,178,839
Series 200: Site Clearance	£291,041
Series 500: Drainage and Service Ducts	£344,216
Series 600: Earthworks	£214,918
Series 700: Pavements	£497,930
Series 1100: Kerbs, Footways and Paved Area	£2,637,936
Series 1200: Traffic Signs and Road Markings	£1,255,111
Series 1300: Road Lighting Columns and Brackets, CCTV Masts, Cantilever Masts	£466,853
Series 1400: Electrical Work for Road Lighting and Traffic Signs	£181,093
Series 2400: Brickwork	£631
Series 3000: Landscape and Ecology	£359,817
Total Sum to Form of Tender	**£8,428,384**

Indirect Construction Costs

Preparation, supervision and management fees have been included in the capital cost unit of account to reflect additional costs associated with site supervision and NEC contract management, utilities (including diversions), additional design support to the construction process and other NYC fees to support engagement and third-party activities e.g. Network Rail, utility providers.

Based on a review of walking and cycling, highways and public realm schemes that have reached FBC in 2022 and 2023, an allowance of 25% of delivery (construction) costs should cover most eventualities, unless a Development Consent Order (DCO) is required. Fees including surveys, design, supervision, PM (inc. staff costs) and NY costs and Contractor ECI have been estimated at approximately £1.8m in current prices, which represents approximately 21% of direct construction costs.

Table 5-2: Indirect Construction Costs (£, nominal)	
Cost Component	**Total**

Fees inc. surveys, design, supervision, project management	£1,801,875

Project Development and Benefits Realisation

Preparation and administrative costs including project management, design costs and preparatory fees have been included in the project development cost component of the scheme costs. The majority of these costs have already been incurred prior to March 2025 and are therefore defined as 'sunk' costs that represent expenditure that cannot be retrieved. Capital expenditure required for annual monitoring of air quality data and walking and cycling flows has been included under Benefit Realisation Reporting, with further expenditure in 2026/27 for data collection to inform scheme monitoring and evaluation.

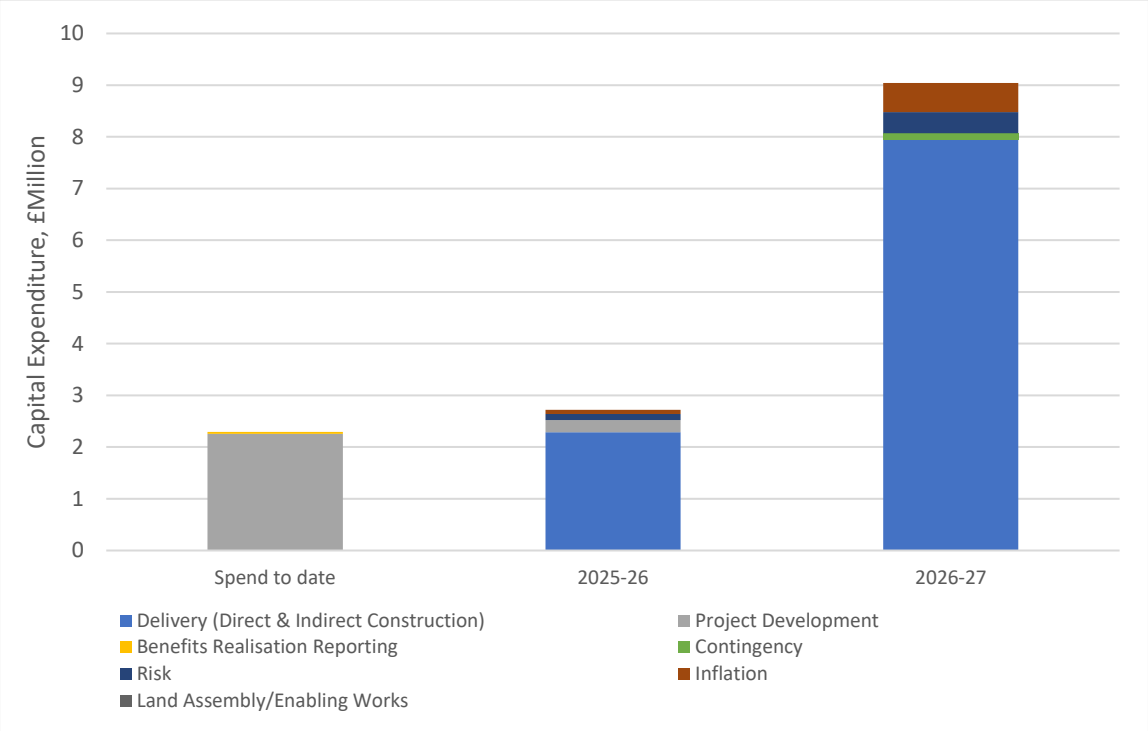
Cost Profile

The anticipated final scheme cost is approximately £14.06m in nominal terms i.e. with inflation. Scheme costs have been calculated in outturn prices based on a total sum to form of tender and a detailed Bill of Quantities (BoQs). Costs have been profiled over the design and construction programme. Table 5-3 shows the profile of scheme costs by financial year.

Table 5-3: Scheme Cost Profile (£, nominal)

Cost Component	Spend to date	2025/26	2026/27	Total (inc. spend to date)
Delivery (Direct and Indirect Construction Costs)	£0	£2,290,319	£7,939,941	£10,230,260
Project Development	£2,256,533	£230,677	£0	£2,487,210
Benefits Realisation	£40,000	£0	£10,000	£50,000
Contingency	£0	£0	£119,131	£119,131
Risk @P80 (QRA)	£0	£117,465	£407,221	£524,686
Inflation	£0	£80,161	£565,522	£524,686
Land Assembly & Enabling Works	£0	£0	£0	£0
Total (outturn capital costs)	**£2,296,533**	**£2,718,622**	**£9,041,816**	**£14,056,970**

Figure 5-1: Capital Expenditure Profile by cost line item, £m



Operation, Maintenance and Renewal costs

Costs related to the ongoing operation, maintenance and renewal of infrastructure have been estimated. This is based on assumptions to derive these costs in proportion to the capital costs associated with the scheme.

The combined total regular maintenance and renewal costs have been calculated based on an assumption of an annual contribution of 0.1% of base construction costs, excluding preliminaries, earthworks and site clearance. This is equivalent to an annual regular maintenance and renewal cost of £5,744.

The annual maintenance cost is primarily driven by general inspection activities, and it is assumed that this will be quite modest as there are expected to be some maintenance cost savings for the pieces of infrastructure that are renewed or improved. An annual maintenance cost is assumed to amount to £1,000 per annum across the whole appraisal period.

The remaining costs have been assumed to be related to scheduled renewals of the proposed infrastructure. These costs have been distributed across the appraisal period using an assumed spend profile.

Table 5-4: Regular renewal costs time profile

	Year 15 (2041)	Year 20 (2046)	Year 30 (2056)	Year 40 (2066)	Year 45 (2071)	Total

% of total renewal costs	5%	40%	10%	40%	5%	100%
£, 2024 prices	£13,944	£111,549	£27,887	£111,549	£13,944	£278,872

Additionally, to take into account the shorter asset life of some of the public realm and active mode infrastructure, end-of-life asset renewal costs have been accounted for in the appraisal to provide a single appraisal period (i.e. 60 years) to appraise the impacts of all the scheme components. These have been represented by an additional 10% of base construction costs in years 20 and 40.

Table 5-5: End-of-life asset renewal costs

Year	£m, 2024 prices
Year 20 (2046)	£574,359
Year 40 (2066)	£574,359

Within the appraisal, it has been assumed that renewal costs are subject to inflation above the levels of general inflation in the economy, hence these costs have been inflated using the GDP deflator +2.1% per annum. T
The total operation, maintenance and renewal costs are £1.8m (2024 prices). After adjusting for inflation it is estimated at approximately £6.2m (nominal prices) over the appraisal period.

NYC will be responsible for the maintenance of cycleways, footways and public realm post construction. New and upgraded walking and cycling infrastructure is within the highway boundary, with no private land purchase or enabling works required for scheme implementation.

5.2 Funding Profile

5.2.1 What is the cash flow and funding profile for the project?

Budget and Funding Sources

The total scheme cost is £11.76m, which excludes £2.30m that has been spent to date up to and including the end of the 2024/25 financial year. Table 5-3 shows the cost spending profile by funding source.

Table 5-3: Local and WYCA/DfT contributions by financial year (£m, nominal)

Funding Source	Spend to date					Forward Look		Total
	2020-22	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	
WYCA/DfT TCF	0.64	0.50	0.70	0.30	0.15	2.35	6.00	10.64

WYCA TCF (Skipton Transfer)	-	-	-	-	-	0.37	-	0.37
Local	-	-	-	-	-	-	3.05	3.05
Total (£m)	0.64	0.50	0.70	0.30	0.15	**2.72**	**9.04**	**14.06**
							Total (excluding spend to date)	**11.76**

Cash Flow Statement

In summary, the preferred option is expected to have the following implications on public accounts:

- TCF funding in the amount of £11.00m, including spend to date (expenditure already incurred that cannot be recovered). Excluding spend to date, £8.34m is required in the 2025-26 and 2026-27 financial years for scheme delivery. This includes £369,807 reallocated TCF funding (from Skipton) transferred to the delivery of the Harrogate Station Gateway Improvement Scheme.
- A local contribution to capital costs from NYC and YNYCA of £3.05m backloaded to the 2026-27 financial year is required.
- The net annual regular operating, maintenance and renewal costs of the scheme have been estimated at £6,744 (2024 prices). This includes general inspection activities (maintenance) of £1,000 per annum and regular renewals expressed as a proportion of the costs of the new infrastructure estimated at £5,744 per annum.
- Scheduled renewals of new infrastructure associated with the scheme have been assumed to fall in Year 20 and Year 40 after opening, 2046 and 2066, respectively. The costs associated with scheduled renewals of the new infrastructure are estimated at £1,427,589 (2024 prices) over 60-years.

As a commitment of support, NYC's Section 151 Officer has provided a letter to restate and reinforce the Council's financial obligations in ensuring compliance with the WYCA's Assurance Framework requirements and the Transforming Cities Fund requirements and identifying the local contribution for the scheme. An additional £500k has been allocated to the overall NY TCF programme, assuming TCF funding is approved, with NYC reserving the right to reallocate capital funds across the programme as required.

5.3 Revenue Costs

5.3.1 Are there any revenue, on-going/operational costs associated with the project?

The Harrogate Station Gateway scheme may give rise to limited additional revenue liabilities for capital renewals and maintenance, when compared to a future scenario in which the Harrogate Station Gateway scheme does not exist. Operating and maintenance costs are the cost of people,

machinery and materials required to maintain the infrastructure associated with the Harrogate Station Gateway. The anticipated 'whole life cost' expenditure has been profiled over time.

The majority of the maintenance obligations will fall under the purview of NYC and, as such, will be fulfilled as part of the maintenance regime operated by the council. The station plaza area is currently maintained by Network Rail. There is not expected to be a net increase in maintenance requirements as a result of the scheme proposals within the plaza.

Maintenance and Renewal Costs

As the Harrogate Station Gateway scheme predominantly falls within the existing extent of the highway boundary it is not expected that there will be a significant change in maintenance costs associated with these elements of the scheme.

Based on the above assessment it is predicted that approximately £1.65m in nominal prices will be required for the purposes of renewing and maintaining the net new infrastructure over a 60-year period.

The whole life costs identified above have been factored into the economic appraisal and have therefore had an impact on the estimated BCR and NPV. In financial assessment terms, these maintenance costs would be covered by the asset owner. NYC will maintain its assets in line with council budgets.

The approach to estimating net maintenance costs used at this stage is considered to be conservative as it assumes that existing and proposed infrastructure is of equal condition (i.e. 'as new'). It is likely that elements of the existing infrastructure will be at, or close to, the end of its permitted life span and therefore would be requiring imminent renewal. Whereas all the proposed infrastructure will be new when installed. This would increase the maintenance costs of the future 'without' estimate and consequently reduce the net 'with scheme' maintenance costs.

Operating Costs

No operating costs are associated with the Harrogate Station Gateway Improvement Scheme.

5.4 Funding Source

5.4.1 What other funding sources are there within the project?

£11.01m is requested from the TCF programme for the delivery of the Harrogate Station Gateway Improvement scheme. This total includes approximately £2.30m on project development (spend to date) and £8.34m (forward looking) in indirect and direct construction costs. The local contribution to scheme costs is approximately £3.05m and is mainly sourced from NYC and YNYCA.

No third-party contributions have been identified. Table 5-4 shows the funding sources and profile by financial year throughout the scheme development and construction period to scheme opening.

Table 5-4: Local and WYCA/DfT contributions by financial year (£m, nominal)

Funding Source	Spend to date					Forward Look		Total
	2020-22	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	

West Yorkshire Combined Authority (TCF Funds Harrogate)	644,533	501,494	698,505	299,071	152,929	2,348,815	5,991,816	10,637,163
West Yorkshire Combined Authority (TCF Funds Skipton)	-	-	-	-	-	369,807	-	369,807
Other UK public organisations (NYC and YNYCA)	-	-	-	-	-	-	3,050,000	3,050,000
West Yorkshire Combined Authority (Carbon Mitigation Funds)	-	-	-	-	-	-	-	-
Private Sector	-	-	-	-	-	-	-	-
Total	644,533	501,494	698,505	299,071	152,929	**2,178,622**	**9,041,816**	**14,056,970**
							Total (excluding spend to date)	**11,760,438**

5.4.2 What are the main financial risks and how will they be managed?

The existing project risk register was utilised as a starting point for the Quantified Risk Assessment (QRA), also referred to as the Quantified Risk Assessment (QRA). The scheme risks previously identified were re-validated and reframed, enabling actual risks to be determined, their causes and consequences to be established and mitigation actions to be planned. It was determined that there were a total of 124 scheme risks. 117 of these have now been closed, as the project has developed, with 7 remaining risks still open.

The risks identified have been assessed in qualitative terms and a QRA model has been run based on a pre-defined PxI matrix, informing the cost impact assessment on the value ranges defined by the matrix. The current risk exposure for the project at Approval to Proceed (AtP) stage is £524,686 (P80) which is approximately 6% of the direct (base) construction costs. The post mitigation risk exposure for the project at Approval to Proceed (AtP) stage is £401,240, which is approximately 5% of the scheme cost based on the post-mitigated P80. The key risk drivers are shown in Table 5-5.

Table 5-5: Top Risks (Current and Target Risk Exposure)

Risk No	Description	Current Assessment		Target Assessment	
		Probability	Target Score	Probability	Target Score
124	Successful Legal Challenge	75%	20	75%	20
019	Unexpected, buried services, structures, underground cellars, and utilities could be encountered.	18%	9	10%	6
051	Known stats diversions could be more expensive and/or take longer than initially envisaged	25%	9	8%	6
115	Third Party / Stakeholders Constraints.	18%	6	3%	4
039	Tree roots may impact on construction delivery	8%	4	8%	4
024	Ground conditions worse than anticipated / Ground may be contaminated.	10%	6	3%	3
123	Adverse weather conditions	3%	3	3%	3

Table 5-5 identifies the key financial risks to the scheme. Table 5-6 details the cause, consequences and mitigation actions that can be undertaken to reduce the current risk exposure to target.

Table 5-6: Open Risks – Cause, Consequence and Mitigation Action

Risk No	Cause	Consequence	Mitigation Action
124	Potential legal challenge raised from impacted stakeholders	1. Loss / weakening of Value for Money position and Contract target price expires. 2. Possible descoping required to meet budget constraints.3. Increases inline with inflation beyond the considered 2.5%. 4. Increased cost for legal challenge (legal fee). 5. Reputational damage	1. Retaining the Kings Counsel, to provide advice to minimize chances of legal challenge. (NYC). 2. Business case robustness to be ensured to standup to tackle any challenges. (NYC & WSP). 3. Period of public engagement to be undertaken prior to executive decision.
019	1. Some of the infrastructure interventions may require excavation. Excavation for tree pits and surfacing required. RFI response that Harrogate have limited information on buried services. Possibility (rumour) of a toilet block in required location	1. Diversions may be required, at extra cost.	1. Ensure the contractor to carry out works in accordance with Highway Standard G47.2. Residual risks will be identified on the design drawings. - C2 information provided, works ongoing through design. 3. Contractor to undertake suite of surveys including GPR direction. 4. Trials holes to be undertaken through ECI contract as appropriate - pending GPR survey outcomes and further instruction. 5. Construction depths and extents reduced - ongoing
051	1. Delay in ordering diversions due to uncertainties around the project	1. Increased programme length and potential increase in cost	2. Carry out assurance check on Stats diversion works once it is been completed. 4. Re engagement of stats providers regarding up to date C3 information - ongoing, expected returns within 20 working days. –

			Completed. 5. C4 received, coordination exercise needs to be undertaken with the stats providers.
115	Unforeseen changes in operational requirements and working space/time prolong programme	Potential of objection to works licences/permissions. Possible compensation claims for disruption. Redesign on site	1. Discussions with stakeholders to be robust and clearly documented. 2. Stakeholder tracker to be used, and to be a key priority in the Communications Strategy
039	1. Any roots from existing mature trees may cause limitations on the construction methodology.	1. Delays in programme.2. Re-design costs 3. Remove and replace trees if redesign is not feasible	1. Liaise with tree officers and LHA for a way forward based on survey results for tree root protection for mature trees. – ongoing. 2. Arbor culturalist to produce tree protection plan and method statement - Protection plan is awaiting site clearance requirements being confirmed and also general arrangements activities that are likely to impact retained trees. Method statement is in early draft awaiting tree protection plan.
024	1. Some works will require excavation. 2. Ground conditions might not be good enough to progress works as planned. 3. Hazardous waste (tar bound material) may be found on highways	1. There could be delays or additional costs whilst dealing with contamination.	1. Discussion with contractor to follow on further expectations for preparatory works - discussions ongoing on mitigation measures if conditions are worse than expected. 2. Hazardous waste will need to be removed.
123	A greater than 1 in 10-year storm	Delay to programme	No actions

5.4.3 How will cost overruns be dealt with?

Once the project contribution is fixed from the CA, cost overrun responsibility falls to the promoting authority.

The Project Management team will be responsible for managing the budget on a day-to-day basis. It is expected that cost reductions will be sought through both the development and delivery process. In addition to this, cost and programme risks have been considered.

Further to the above, to control the project costs the team will be actively managing costs through the risk identification process which will be governed by the Project Board. In the event a cost overrun should occur, the following two-tiered approach would be utilised by the project team:

Project Board & Governance

A Project Board is already established for the project, as detailed in the Management Case, to oversee the management of the design and delivery of the TCF schemes. This Project Board has oversight of performance within set cost tolerances which will be managed and reported by the Project Manager, supported by a contract manager.

It is anticipated that WYCA will set a cost tolerance of 10% at FBC, in line with previous approvals. For any cost overruns above this level there will be a requirement to be take the matter to WYCA for approval. The Project Board will also consider the submission of any change requests and future descoping options if required.

Project Manager Actions

At an individual project level, the Project Manager will control and monitor the project costs.

This will be achieved by actively managing the QRA and seeking to promote value engineering through the NEC4 contract. Decisions will be managed in line with council approvals, reporting through management channels to the Project Executive as required.

Costs of each scheme will also be actively monitored by WYCA's Thematic and Portfolio Boards. Thematic Board will retain overall responsibility for ensuring cost over-runs do not occur and are suitably mitigated in the first instance through individual project management practices and responsibilities reporting into Programme Board.

As the scheme delivery progresses, the out-turn costs achieved, and performance will be used to actively adjust risk allowances as part of the submissions for latter schemes in the programme. This will ensure that there is no on-going build-up of potential cost over-runs over the delivery of projects coming forward as part of the programme.

Contractor Actions

The Commercial Case (section 3.2.3) details the proposed approach to risk allocation and transfer. This identifies those risks which would be assigned in full (or on a shared basis) to the Contractor. The approach presented will ensure that all risks are assigned to the party best placed to manage them, achieving value for money.

Delivery and programme risk will be shared and incentivised through a pain/gain mechanism provided for as part of the construction contract. This will be incentivised against the NEC4 Target Cost approach, with the incentives set out in the Commercial Case.

Incentive payments against target cost at the previous stage will provide a strong set of incentives and reward to be innovative in finding solutions to problems.

5.4.3 Does the project offer any potential to generate a commercial return to pay back the Combined Authority funding?

Not applicable to this scheme. No planned works as part of the Harrogate Station Gateway will provide a commercial return to pay back the Combined Authority funding.

There is no opportunity to provide additional retail assets as part of the scheme delivery that will offer a commercial return to the CA. All existing assets are to be rightly owned and maintained by NYC and Northern/ Network Rail.

5.4.4 Has the project considered any State Aid implications?

There are no known State Aid implications.

The improvements to pedestrian, highway and cycling infrastructure and public realm on the public highway to be delivered by the scheme will benefit the public in a free and non-discriminatory manner. The scheme will not affect trade between member states or distort competition. Improvements to the public highway which are not commercially exploited but used by the society as a whole in a free and non-discriminatory manner falls within the public remit of the state and are

exempted from State Aid control. Whilst the scheme may deliver indirect benefits to train operating companies (TOC's) currently operating at Harrogate Station, their contracts to provide public transport result from a properly procured process. The scheme delivery partners have also been properly procured.
5.4.5 Is the Combined Authority funding a loan? Only complete this section if applying for a loan from the Combined Authority.
Not applicable.

6. Management Case

6.1 Deliverability

6.1.1 How will the delivery of the project will be managed?

This section identifies the management and governance arrangements for the scheme, based on experience from previous projects that have been successfully delivered.

A robust project management framework and governance structure is in place to manage the scheme through to construction. The framework follows the principles of PRINCE2 and has been developed in line with the WYCA Assurance Framework and requirements.

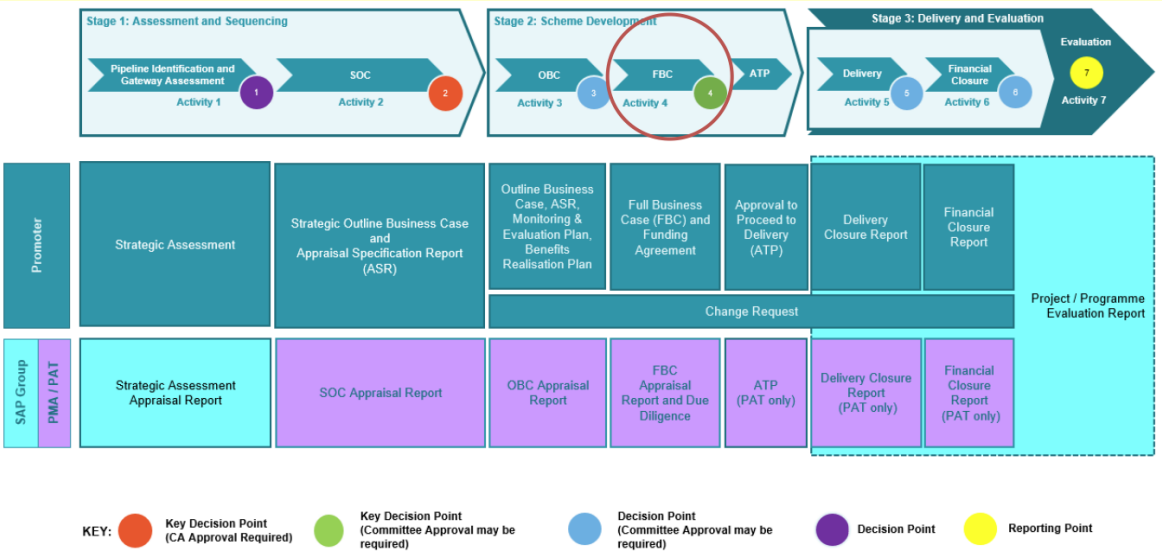
West Yorkshire Combined Authority (WYCA) Assurance Framework

As noted previously, since submission of the OBC YNYCA has been established. However, given that the scheme started under the WYCA assurance framework, and YNYCA is still in mobilisation, the WYCA assurance process still stands.

The WYCA Assurance Framework covers expenditure on projects and programmes funded by Government or local sources in the WYCA region and is being used to inform the TCF Programme.

Figure 6.1 below shows the stages in the WYCA Assurance Framework process, illustrating the three-stage system for project control to deliver value for money in a transparent and accountable way. This FBC is at Activity 4 in Stage 2 of the process and the Management Case contains the relevant evidence to demonstrate NYC can manage the project from inception to opening.

Figure 6.1 - WYCA Assurance Framework process



Previous Project Experience and Expertise to Deliver the Project

The following projects delivered by NYC demonstrate the authority's ability and expertise to deliver infrastructure projects in North Yorkshire from SOC stage, through to full construction and opening.

Different procurement options were used for each project, further demonstrating the Council's ability to manage projects under different contracts. This provided the flexibility and experience needed to determine the best value route to procure the construction element of the scheme through the development of the OBC. An exercise will be concluded prior to construction following the successful appointment of the delivery contractor post submission of this FBC.

Table 6-1 provides evidence of NYC's ability to successfully deliver high quality infrastructure schemes across the county. Opportunities will be taken, wherever possible, to improve delivery processes by acting upon the lessons learnt from these schemes.

Table 6-1: Experience of Similar Projects

Scheme	Description	Development	Construction	Project Management
Bedale, Aiskew and Leeming Bar Bypass (BALB)	The highway scheme consists of a 4.8 km single carriageway (7.3m wide) link from the A684, north of Bedale, to the A684, east of Leeming Bar. The scheme crosses the A1(M) at approximately the midpoint of the bypass, where it connects to a grade separated interchange at Junction 51, which was previously constructed as part of the A1 upgrade motorway scheme.	Funding for the scheme was approved in July 2014 following the TAG stages of SOC, OBC and FBC. Work commenced on site in November 2014. The scheme was delivered within the £34.5m budget and opened to traffic in August 2016 two months earlier than identified within the initial programme. Successful management was possible in part through a stakeholder and public consultation approach which complied with the	A procurement strategy workshop was undertaken to help determine the construction procurement method. It was determined that the construction phase was to be delivered through an NEC/ECC Option A design and build contract. Following a successful funding application, interested contractors were engaged through the Official Journal of the European Union (OJEU) process.	Project management controls included using accredited engineering consultants and contractors with clearly defined management controls aligned to PRINCE2. NYCC used their Professional Services Framework Contract and an OJEU process to ensure quality controls were in place to deliver the project. Unique challenges: The bypass was delivered through three sites of archaeological

		NYCC's Statement of Community Involvement. The results of the consultation played a significant role in offering support for a bypass from the communities of Bedale, Aiskew and Leeming Bar.		importance including a Roman Villa and a late Iron Age enclosure, causing adverse impacts on each. Successful management was crucial in minimising the impacts the scheme had on the archaeological sites. This included undertaking a series of archaeological excavations ahead of construction and protecting the vast majority of the Aiskew villa complex which lies outside the road corridor by designating it as a scheduled ancient monument.
Scarborough Integrated Transport Scheme	The Scarborough Integrated Transport Scheme (SITS) was developed to improve access into the seaside resort of Scarborough. The scheme bypassed the village of Osgodby and offered improved access to Scarborough with fewer junction	The project was a £30.5m package of works consisting of the following elements: A165 Scarborough Lebberston Diversion: 4.3km of new highway including three structures and a subway; Introduction of bus priority measures on the	The SITS scheme was procured using NEC/ECC Option C contract with Early Contractor Involvement (ECI). The designer and contractor shared the same office during the design phase which enabled the contractor to fully understand and input to the design	Project management controls included using accredited engineering consultants and contractors with clearly defined management controls aligned to PRINCE2. NYCC used their Professional Services Framework Contract and an

	interactions, and consequently reduced congestion and delay. Traffic flows on the A165 into Scarborough were significantly higher (approximately 30% more) in the summer, and combined with an increase in NMUs, resulted in a higher than average collision rate. The provision of a bypass of Osgodby allowed for the additional development of a Park & Ride site and for the introduction of bus priority measures to further reduce traffic impacts in the town centre.	A64 and A165 approaches to Scarborough; A165 and A64 Park & Ride sites; and Extension and upgrade of the Urban Traffic Control (UTC) system in Scarborough. The development of the work followed the DfT Local Major Transport Scheme funding process and involved the development of an SOC, OBC and FBC, with scrutiny at each stage by the DfT. Funding was awarded in 2006.	process, to price efficiently and to build relationships which would continue through the construction phase. The partnering approach worked very well on this scheme with the contract being completed on time, though the outturn cost was 10% over budget. The increase in cost was largely due to significant delays caused by the requirement for a major utility diversion, and issues relating to land for the Park & Ride which became unavailable. It was recognised by all parties that the partnering approach reduced the impact of these issues and greatly reduced the potential increase in costs. SITS was completed in 2009 with the road scheme open in December 2008 and the Park & Ride sites and services	OJEU process to ensure quality controls were in place to deliver the project.

			commencing operation in February 2009.	
Kex Gill Bypass (Full Funding Granted February 2021)	The proposed £60m Kex Gill scheme will provide a new 3.94km diversion of the existing single carriageway section of the A59 addressing the issues of recurring landslips. A59 is part of the Government's Major Road Network (MRN), and a critical east west link and offers an important connection to sections of the Strategic Road Network (SRN), most notably Junction 31 of the M6 and Junction 47 of the A1(M)1.	In 2016, detailed work began on developing options to address the issue of landslips and instability on the A59 at Kex Gill. Following the appraisal of the 16 options, a number of the best performing routes (based on their ability to address the issues of resilience, connectivity, reliability and safety as well as their fit with national and local transport policy) were collated in to a 'consultation corridor'. Following the TAG approach to developing the SOC, OBC and FBC, the preferred route alignment was developed following the results of the ground investigation works and extensive liaison with environmental, geotechnical and	The preferred contract type is a traditional contract where Framework Engineering Consultants will undertake the design element of the scheme under the existing framework with NYC. It has been determined that the primary objectives in terms of cost and programme are most likely to be achieved by progressing the scheme using the NEC3 Option A: Priced with activity schedule. Initial pre-Main Work Construction of the scheme commenced in 2023 ahead of the projected 2025 opening date.	Project management controls include using accredited engineering consultants and contractors with clearly defined management controls aligned to PRINCE2. NYCC used their Professional Services Framework Contract and will use an OJEU process to ensure quality controls are in place to deliver the project.

		highway engineering specialists.		

The successful delivery of these above-outlined schemes provides confidence that NYC have a significant level of experience in the planning and delivery of transport improvements. Opportunities will continue to be taken, where possible, to improve delivery processes by acting upon the lessons learnt from these recent schemes.

On a broader approach, the above schemes have given NYC experience in recognising that:

- Significant appreciation of risks, including unforeseeable ones, require good management. This should be considered through regular meetings and discussions between NYC and the designer and/or contractor as early as possible in the process, along with risk reviews to mitigate and manage risks and ensure compliance with Construction Design and Management (CDM) Health & Safety processes. A Risk Register has also been included as a standing item on all progress/steering group meeting agendas;
- Where applicable, changes within the design process are appreciated as early as possible and there is an understanding that alterations when further into the detailed design stage should be minimised;
- Effective public engagement can help share information about the scheme, alleviate concerns and reduce the risk of low public acceptability; and
- Early partner engagement from the outset; including from legal services, can reduce the risk of issues arising later in the project and contribute to the successful delivery of the project.

Project Governance Structure, Roles and Responsibilities

The key project roles and responsibilities have been defined for the scheme and the governance structure is in place. These are summarised in Table 6-2 and Table 6-3. At a programme level WYCA will have overall responsibility and accountability for any funding released by the DfT to the LCR regarding the TCF.

At the project level, NYC has the in-house capabilities, supported by a design and construction supply chain, with the required project management systems, skills and track record to be able to deliver this project successfully. The Council is being supported by an assigned Project Manager from WYCA who is working in partnership with NYC through the assurance process.

The Council, and its predecessors NYCC and HBC, have robust financial monitoring systems and procurement credentials as demonstrated by many years of delivering externally funded projects and including highway/ transport schemes. NYC also has dedicated resources to deliver the scheme using PRINCE2 and Managing Successful Programmes (MSP) methodologies.

The key roles and responsibilities associated project level bodies are summarised in Table 6-2.

Table 6-2: Key Project Roles and Responsibilities – Harrogate Railway Station Gateway Active Travel Improvement Scheme		
Project Role	**Responsible Person/s**	**Project-level Responsibilities**
Executive	Barrie Mason, Assistant Director – Highways & Transportation, NYC	Overall responsibility for project
Business Sponsor	Richard Binks, Head of Major Projects & Infrastructure, NYC	Oversight of major capital projects. Project representative at Portfolio Board (highways)
Project Manager	Matt Roberts, Economic & Regeneration Project Manager, NYC	Day-to-day project management. Project representation at NYC TCF Project Board
Programme Manager	Tania Weston, TCF Programme Manager, NYC	Day-to-day NYC TCF programme oversight to ensure alignment with the objectives and delivery. Project representative on Thematic Board
Highways	Melissa Burnham, Area Manager, Area 6	Highways support
Economic Development/ Regeneration Representative	Julian Rudd, Head of Regeneration – South, NYC	Economic development / regeneration support, local advice to the project, NYC Portfolio Board representative (regeneration)
Legal Representative	Maria Hill, Partnerships & Procurement Lawyer, NYC	Legal support
Finance Representative	Graham Bryne, Head of Finance, NYC	Financial support
Procurement Representative	Martin Simpson, Senior Category Manager Place, NYC	Procurement support
Communications	James Sherwood, Communications Business Partner, NYC	Communications support
Project Assurance (WYCA)	Kay Trejdosiewicz	WYCA representative at Project Team meetings
Design Lead	WSP	Principal Designer, NEC Contract Management (tbc)

Delivery Contractor	TBC	Principal Contractor

NYC TCF Project Board

The NYC TCF project board has been set up to oversee all three NYC TCF projects (Harrogate, Skipton and Selby).

The purpose of the NY TCF Project Board is to ensure the projects within the county are developed and delivered in accordance with the WYCA Funding agreement, DfT guidance, and the vision and objectives of the LCR TCF programme.

The board provides the direction for the projects, supports the Project delivery teams, challenges decisions, and ensures the development and delivery is on track, within budget and will deliver the required standards of quality whilst sharing scheme specific experience and lessons learnt across all three projects.

The NYC TCF project board representatives and their roles are set out in Table 6-3 below.

Table 6-3: NYC TCF Project Board Members

Board Member	Title	Board Role
Barrie Mason	Assistant Director – Highways and Transportation	Project Executive
Richard Binks	Head of Major Projects and Infrastructure	Business Sponsor
Tania Weston	TCF Programme Manager	Programme Manager
Matt Roberts	Economic and Regeneration Project Manager	Project Manager
Julian Rudd	Head of Regeneration - South	Senior User (Regeneration)
Melissa Burnham Hannah Benson	Area Manager, Highways Harrogate, Skipton and Selby	Senior User - Highways
Vicki Dixon	Assistant Director Resources	Assurance (Finance)
Catriona Gatrell	Head of Legal Corporate Services	Assurance (Legal)
James Sherwood	Communications Selby, Harrogate, Skipton	Assurance (Communications)
TBC	TBC	Senior Supplier (Contractor)
Nick Clarke John Denny	Associate Director, Local Government, WSP	Senior Supplier (Designer)
Vicky Dumbrell Kay Trejdosiewicz	Programme Manager & Project Manager, WYCA	Assurance (Funder)
Francesca Light	Local Infrastructure Delivery Lead, DfT	Assurance (Funder)

The NYC TCF project board and project activity outcomes are reported back to WYCA on a monthly basis via its PIMS system and Thematic Board. The NYC TCF project board sits under the NYC Capital Projects and Infrastructure Programme Board, which is chaired by the Corporate Director for Environment and provides further oversight and assurance. It reports to the NYC Corporate Capital Programme Board, which is chaired by the Chief Executive.

WYCA Thematic Board

The purpose of the TCF Thematic Board is to ensure the projects are developed and delivered in accordance with WYCA and DfT guidance, and the vision and objectives of the LCR TCF programme. The NYC TCF Programme Manager attends the Thematic Board.

The board ensures coordinated development, and delivery of similar types of schemes and interventions, with common objectives, outcomes, and benefits. The board provides direction for the projects, challenges decisions, and ensures development and delivery is on track, within budget and will deliver the required standards of quality.

The role of the Thematic Board is to:

- Provide leadership, coordination and direction to all aspects of the planning, programming, funding, procurement, implementation and monitoring of the Access to Places work packages and schemes;
- Ensure monitoring of progress, cost and quality is undertaken in an effective manner;
- Provide a forum for strategic discussion and recommendations in relation to programme delivery, including the management of inter-dependencies between schemes and cross cutting issues;
- Ensure that the WYCA Assurance Framework is complied with throughout all stages of the programme planning, procurement, and delivery;
- Endorse the submission of business cases to the Combined Authority's appraisal team, following a review of the business case by the CA Programme Team;
- Promote partnership working, negotiate solutions with partners and stakeholders, and escalate any issues to Portfolio level that cannot be resolved at Programme level; and
- Ensure dissemination of best practice and lessons learnt, to inform this and future programmes.

WYCA TCF Portfolio Board

The TCF Portfolio board operates on a by exception basis, with issues escalated up through Project to Thematic Programme to Portfolio Board.

The overall aim of the board is to provide strategic leadership, support and challenge to the TCF Portfolio, ensuring development and delivery within agreed time, cost and quality parameters. The board monitors progress made by the wider TCF Portfolio, implementing and disseminating required actions to ensure successful development and delivery of schemes.

The board provides oversight to the Portfolio to ensure there is appropriate assurance and governance in place, providing the opportunity for risks and issues to be escalated from Programme Boards as necessary. The management of the risk and contingency budget for the Portfolio comes under the responsibility of the TCF Portfolio Board. The Portfolio Board also approves transferring of funding between the thematic programmes board, should the situation arise including the management of the Portfolio Risk and Contingency budget for West Yorkshire and release of funding when necessary.

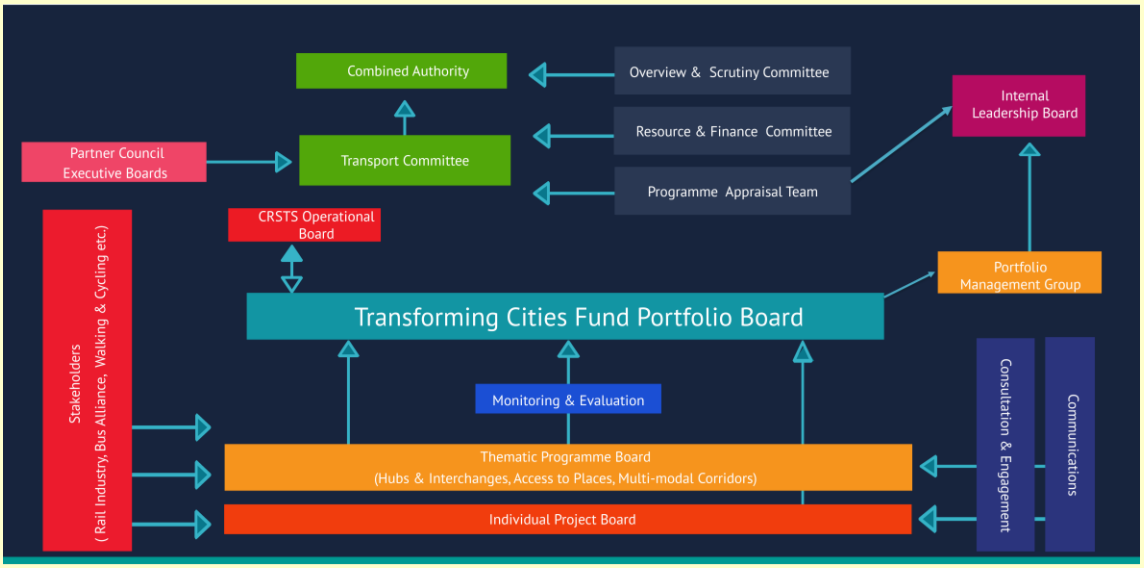
Attendees of the Portfolio Board are identified in Table 6-4 below (other council attendees removed). The Portfolio Board meetings are scheduled on a monthly cycle where possible.

Table 6-4 – TCF Portfolio Board Members

Name	Title	Organisation	Role
Mark Ramsden	Head of Transport Implementation (Chair/SRO)	WYCA	Member
Fiona Limb	Transforming Cities Implementation Lead	WYCA	Member
Hannah Pennick/ Annabel Mason	Project Assistant	WYCA	Attendee (Board support & Admin)
Rachel Jones	Transport Lead (Projects), Transport Implementation	WYCA	Member
TBC	Head of Finance	WYCA	Attendee
Simon Linley	Multi-Modal Corridors Programme Manager	WYCA	Attendee
Vicky Dumbrell	Access to Places Programme Manager	WYCA	Attendee
Jonathan Rogers	Hubs and Interchange Programme Manager	WYCA	Attendee
Elaine Kelly	Consultation and Engagement Manager (Transport)	WYCA	Attendee
Katie Edmondson	Lead Communications & Marketing Officer	WYCA	Attendee
Helen Ellerton	Policy Manager	WYCA	Attendee
Richard Binks	Head of Major Projects & Infrastructure	North Yorkshire Council	Attendee
Julian Rudd	Head of Regeneration – South	North Yorkshire Council	Member

The relationship of the Thematic Board to the TCF Portfolio board, as well as governance boards within the Combined Authority and Partner Councils is shown in Figure 6-2.

Figure 6-2: TCF Governance Structure



Management of the Project

The project is following the principles of PRINCE2 as well as the project controls, processes and reporting set out in this document, which will ensure that all stages of the project are managed consistently and effectively. Specifically, it will ensure that:

- An appropriate control and reporting framework is put in place to effectively manage the project as required by the project board;
- An appropriate project framework is put in place that effectively manages all issues and risks; and
- A robust change management process is put in place to manage all project changes

Project Execution Plan

The Harrogate TCF Station Gateway Project Execution Plan (PEP) presents all of the pertinent project information and project management details.

The PEP provides an overview of the management framework for the project, giving details of:

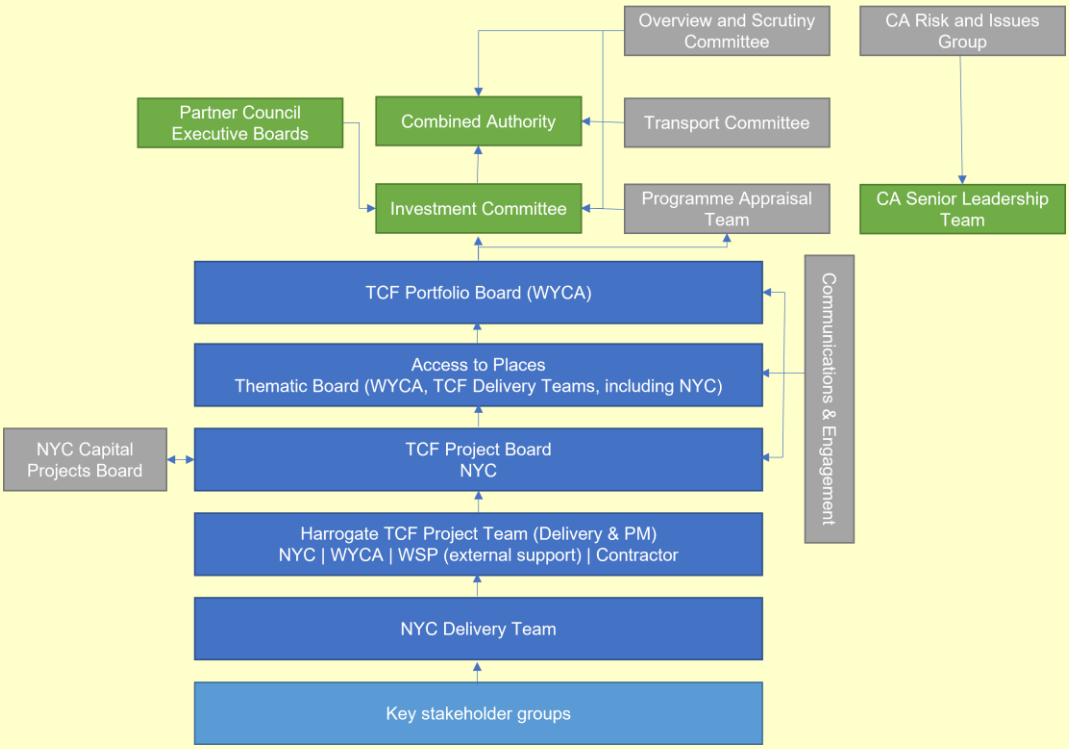
- Project Background
- Governance and Communications
- Programme
- Risk Management
- Links with other schemes
- Lessons Learnt

6.1.2 Which organisations are involved in the delivery and management of this project?

Project Governance Structure

The project governance structure is summarised in Figure 6.3. This identifies the organisations involved in the delivery and management of this project.

Figure 6-3: Illustration of Project Governance Structure



Project Delivery Partners

The role of each delivery partner and their external support is summarised in Table 6-5 below.

Table 6-5: Summary of Project Delivery Partner Roles

Organisation	Role in project delivery
West Yorkshire Combined Authority	WYCA is the lead partner who will manage delivery, budgets, and outcomes at a TCF programme wide level.
North Yorkshire Council	NYC is the scheme promotor managing the delivery of the project and its business case, are responsible for the detailed design process, procurement, and management of construction contractors, and ensuring the outcomes are achieved at the project level.
WSP (external support)	WSP is the supporting consultant and has been involved with the project since the initial concept stage. WSP supported with the scheme identification and selection, appraisal, as well as developing the

	feasibility, preliminary and detailed designs. WSP is the Principal Designer. WSP has experience and expertise in business case proposals, optioneering for cost benefit analysis, planning applications and detailed design for major infrastructure projects for central and local government clients.
TBC (contractor)	The Contractor is responsible for overseeing all aspects of the construction of the scheme in accordance with the approved plans. This includes but is not limited to the management of the following: procurement of labour, materials and equipment and the programme of works.

6.2 Scheme Programme

6.2.1 What is the anticipated scheme delivery timeframe?

The scheme programme scopes and defines key project elements, allowing the project manager to ensure important milestones, key tasks on the critical path and any project dependencies/ constraints do not hinder the delivery of the scheme. The programme is a live document that is proactively managed by the Project Management Team.

Following the production of the Alternative Design Proposals for the scheme, reflecting the descoping of the proposed interventions, a revised programme has been developed. Opportunities/ contingencies in relation to the scheme programme have been identified and explored further to help reduce the TCF funding ask and expedite delivery.

Currently, it is anticipated that construction of the scheme will be completed by Q1 2027. During the construction period, formal monthly meetings will be held, with additional weekly contract/ project management meetings or site visits. Any significant programme issues will be reported to Project Management Team and escalated to the NYC Project Board as required.

Table 6-6 below sets out the key milestones for the programme.

Variances between OBC and FBC

At the time of the OBC, construction was scheduled for February 2022 to March 2023. Given the impact of revisiting the scheme design following legal challenge (as described in the Strategic Case) the programme has substantially changed, with construction now scheduled between Autumn 2025 and Spring 2027.

Table 6-6: Summary of Scheme Programme

Key Milestone	Date
Detailed Design Start	March 2024
Detailed Design End	September 2024

Submit Full Business Case for Approval	December 2024
Approval to proceed with Full Business Case	January 2025
Contract Award	October 2025
Construction Start	Autumn 2025
Construction End	Spring 2027

6.3 Delivery Constraints & Risk Management

6.3.1 What Delivery Constraints exist?

Table 6-7 below summaries the key delivery constraints related to the scheme. There are no significant delivery constraints associated with the implementation of the scheme.

Table 6-7: Key Delivery Constraints

Delivery Constraint	Scheme Position
Planning consents	Following the re-design of the scheme, planning permission implications will be reviewed. It is anticipated that the scheme proposal can be delivered under the permissions already granted and permitted development rights.
Land Acquisition	No acquisition required. Consent from Network Rail and Northern required for scheme works on land within Network Rail ownership.
Landlord Consent	Details of landlord consent and assessment of cycle space demand for cycle storage at the rail station. This mainly concerns engagement with Network Rail and Northern Rail.
Compulsory Purchase Orders	No land acquisition required.
Public consultation	No further formal public consultation is proposed for the latest scheme design, other than that statutorily required for the TROs. Further public engagement is proposed.
Public Inquiry	Not required.
Traffic Regulation Orders	TROs are required. These have been developed through detailed design, including statutory consultation and legal processes.
Transport and Works Act	N/A

Public sector match funding	£1.050m– NYC, comprising £550k (from former HBC and NYCC) and £500k allocated to the overall NY TCF programme, assuming TCF funding is approved. NYC reserves the right to reallocate this across the programme as required.
Private sector match funding	None
Procurement contracts	WSP have been procured, with the delivery contractor to be appointed.

6.3.2 What approach is being adopted towards risk management?

Risk Management Strategy

Risk management is a continual process involving the identification and assessment of risks, the implementation of actions to mitigate the likelihood of them occurring and the impact if they did. For this project, the NYC Project Board oversees risk management chaired by the Senior Responsible Owner (SRO) and supported by the Economic and Regeneration Manager.

Risks are continually monitored and the TCF Programme Manager will report will very high risks requiring management intervention to the Thematic Board.

The board meets monthly and is attended by Project Managers from the Scheme Promoter and Delivery Partner teams who are developing the scheme and who provide highlight reports outlining progress, key risks/issues and financial forecasting on the project.

Through the FBC stage, risk reduction and value engineering activities continue to support the delivery of the scheme.

Risk Management Process

Risk management is seen as a key process underpinning good scheme governance and achievement of scheme objectives in a cost-effective manner. A scheme risk register for NYC and the contractor have been developed. These have been prepared through discussions with officers at NYC and WYCA and include inputs from technical experts in highway and structural engineering, geotechnical, planning, transport planning, quantity surveyors and environmental disciplines. This NYC risk register is managed by the TCF Project Delivery Manager with the contractor managing their risk register. The risk registers are presented in Appendices J and K.

Risks captured in the risk register are categorised by the following:

- Financial
- Project Management
- Regulatory/Statutory
- Environmental
- Communication /Stakeholder management
- Change management
- Technological/Technical

All risks identified in the Risk Register have an owner identified. High residual impact risks are reported to the NYC Projects Board, and WYCA Thematic or Portfolio Boards, as necessary. Required mitigation measures are discussed at the appropriate level and mitigations actioned by the NYC Project Manager.

As the project approaches delivery, client risks will be formalised and allocated to NYC and the identified construction risks will be transferred to delivery contractor.

Key risks are managed throughout the entire process through the following measures:

- Regular review and update of Risk Register
- Risk workshops and early contractor engagement in detailed design (a process that is already underway)
- Experienced team in delivering road works, with knowledge of recent costs and comparative benchmarks
- NEC contract management from the team, with a dedicated Contract Manager used to working with Target Costs.

The key risks are listed below in Table 6-8 of Section 6.3.3**.**

Quality Statements relating to Relevant Policies and Guidance

Compliance with LTN 1/20

The scheme design has been developed in accordance with the Local Transport Note 1/20.

Green Streets Strategy

To support and enhance the original scheme design at OBC, a Green Streets Strategy (GSS) was developed. The GSS highlighted the opportunities for public realm and green infrastructure. The Strategy is underpinned by the Green Streets Principles developed by WYCA to ensure the proposals achieve multiple benefits and a high-quality design outcome.

The GSS provides additional background information which has been focused around the Green Streets Principles and how they can be applied to the context of Harrogate Station Gateway to benefit placemaking for cyclists, pedestrians and public transport users. The GSS was guided by input from the Project Team and relevant stakeholders to ensure the scheme was suitable and robust within the context of the requirements for the town and the funding available.

Following the descoping of the scheme at FBC stage, the intent of the GSS remains and with the further detailed design work undertaken, the benefits from public realm and green infrastructure originally sought have been retained.

Equality Impact Assessment

An Equality Impact Assessment (EqIA) screening form has been completed for the North Yorkshire elements of the TCF programme. Consideration has been given to the potential for any adverse equality impacts arising from the scheme.

It was the view of NYC officers that the scheme would not have an adverse impact on any of the protected characteristics identified in the Equalities Act 2010. As such, no further EqIA was

required on this scheme. The scheme will enhance accessibility for people with disabilities by improving surfaces, reducing obstacles and reducing conflicts with other road users.

6.3.3 What are the Scheme Headline Risks

The scheme headline risks are presented in Table 6-8.

Table 6-8: Scheme Headline Risks

Risk Type	Risk Description	Mitigation	Current Risk Rating
Financial	Unexpected cost increases	1. Develop low cost, high value options (in order to retain scheme viability) in case cost estimates increase. 2. WSP to continue to liaise with WYCA to establish level of risk to be quantified within cost estimates. 3. QCRA conducted for FBC. 4. Updated costs received ahead of submission FBC to inform decisions. 5. Liaison with WSP-GT QS teams to confirm target costs for FBC. 6. NYC and GT to liaise on preferred suppliers to review possible cost savings. 7. NYC to provide GT with working restrictions strategy.	20
Regulatory/ Statutory	Known stats diversions could be more expensive and/or take longer than initially envisaged	1. Carry out assurance checks on stats diversion works once completed. 2. Ongoing engagement of stats providers regarding up to date C3 information.	12
Change	Out of scope works	1. Discussions with client on expectations and to advise on the impacts of any change. 2. Robust change management and scope creep controls to manage client expectation.	10

		3. Manage client relationships with regard to change.	
Regulatory/ Statutory	Unexpected, buried services, structures, underground cellars, and utilities could be encountered.	1. Ensure the contractor to carry out works in accordance with Highway Standard G47. 2. Residual risks will be identified on the design drawings. 3. Contractor to undertake suite of surveys including GPR direction. 4. Trials holes to be undertaken through ECI contract as appropriate.	9
Environmental	Ground conditions worse than anticipated or ground may be contaminated.	1. Ongoing discussions with contractor to follow on further expectations for preparatory works and mitigation measures if conditions are worse than expected. 2. Hazardous waste will need to be removed.	9
Communication / Stakeholder Management	Delay due to Rail approvals	1. Regular engagement sessions 2. Dedicated rail team engagement within WSP to review with Assets Management. Single submission to Rail agreed to reduce number of deliverables.	9
Communication / Stakeholder Management	Third party/ stakeholder constraints	1. Discussions with stakeholders to be robust and clearly documented. 2. Stakeholder tracker to be used, and to be a key priority in the Communications Strategy.	9

6.3.4 Has a Quantified Risk Assessment been carried out?

A Quantified Risk Assessment (QRA) has been undertaken for the redesigned scheme at FBC stage.

6.4 Communications and Stakeholder Management

6.4.1 Does the Project have a Communications Strategy?

Communications Plan

A Communication and Engagement Plan has been developed for the TCF Harrogate, Selby and Skipton schemes. This Strategy outlines the approach to be taken in supporting the communication and engagement process required for completion of detailed design, consents, and ultimately construction, for the TCF projects.

The main aim of the Plan is to ensure that stakeholders and members of the general public are kept informed throughout development and implementation. This ranges from keeping key stakeholders updated with critical information which is essential to the successful delivery of the scheme, to providing information to the general public.

Engagement with Key Stakeholders

As set out in the Strategic Case, the scheme has been subject to a comprehensive level of engagement and consultation.

As set out previously in the Strategic Case, new TROs are required to allow for the Harrogate Station Gateway improvements to be implemented. Five TRO proposals were subject to consultation and public advertisement in accordance with the Local Authorities' Traffic Orders (Procedure) (England and Wales) Regulations 1996. The TROs were advertised for public comment on 25 July 2024. The last date for receipt of objections was 26 August 2024[17].

Full details of the stakeholder engagement undertaken for the scheme are reported in Appendices G to I.

6.5 Benefits Realisation

6.5.1 Benefits Realisation Plan

The Benefit Realisation Plan (BRP) has been developed by the Project Team, reflecting the key outcomes and outputs being delivered and ensures key ownership of each deliverable within the plan. The BRP will provide WYCA assurance that:

- NYC are committed to the identified benefits and their realisation;
- The benefits process will be actively managed;
- The benefits will be tracked and effectively resourced; and
- That accountabilities for those responsible for each benefit to be monitored are identified.

WYCA's BRP proforma has also been completed and is included in the BRP, reflecting the anticipated outputs and outcomes identified in the Logic Map. It also includes a summary of key benefits profiles.

The tracking of scheme benefits is key to understanding the success of an intervention. The realisation of benefits is intrinsically linked to the Monitoring and Evaluation (M&E) Plan, which is explained in further detail below.

[17] Proposed Traffic Regulation Orders for Harrogate Town Centre, 2024

6.5.2 Is there a Monitoring and Evaluation Plan?

The scheme's M&E Plan has been updated to support this FBC. The Plan addresses WYCA's TCF M&E framework.

Monitoring and evaluation is required by WYCA and the DfT to demonstrate that funding provided from the TCF represents value for money to the taxpayer, that the assessed outputs and outcomes will be monitored and evaluated, and appropriate additional actions can be undertaken.

The M&E Plan has been drafted to measure, monitor, and evaluate the scheme objectives and outputs set out in Section 1.1. The Plan outlines the data collection process, the plan for pre-construction and future monitoring and evaluation, as well as confirming the monitoring and evaluation responsibilities. Project specific outputs and outcomes will be monitored and evaluated locally by NYC, who will issue results to WYCA who will be reporting programme outcomes and impacts back to the DfT.

The plan has been developed to be proportionate, in line with the DfT and Magenta Book guidance for a scheme of this size.

An indicative budget for undertaking M&E of £50,000 has been included in the outturn project costs for the scheme. This will be refined once survey quotes are received from the market, closer to the construction on site date.

The M&E will be managed throughout by the NYC Project Manager.

6.6 Change Management

6.6.1 How will changes be managed

The NYC Project Manager is responsible for managing the change control process. A robust change management structure has been put in place for the project and is subject to the following considerations:

- Change requests can be raised by any stakeholder of the project and will be assessed by the NYC Project Manager before referral to the project board. NYC have a standard change request template, which has been used for the project;
- If the change falls within the project board delegations and tolerances, then the change will be dealt with and reported to Thematic Board as required;
- If the change exceeds delegations and tolerances, then it will be referred to the Thematic Board with a recommendation. Additional internal NYC approvals may also be required. If the Thematic Board sanctions the change, then a change request will be submitted through the PMO process;
- The change control process has and will continue to be actively managed so that any escalation required is undertaken in a timely manner and to limit the impact on delivery timescales.

As part of detailed design and target cost management, a Contingency Plan / Change Management Plan will be developed at Stage 2 contract award.